Village of Westchester Multi-Hazard Mitigation Plan

4/24/2013

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About Westchester

The Village of Westchester is seated in Cook County, in the State of Illinois. The legal description is as follows:

Westchester is located at 41°51′14″N 87°53′1″W41.85389°N 87.88361°W (41.853890, -87.883712)[1].

According to the United States Census Bureau, the village has a total area of 3.2 square miles (8.3 km^2).

A more user-friendly description is as follows:

Westchester borders are 31st on the South end and Eisenhower Expressway on the North end. The west side is 294 Expressway. On the east side it is the cook county forest preserve from 31st to Cermak (22nd) road, and Gardner Road form Cermak (22nd) to Eisenhower Expressway.

Westchester has a population of 16,718 (US Census Bureau 2010 Census) and has a population made up of:

White: 74.4%
Black: 14.3%
Asian: 4.0%
Other: 7.3%

The area now known as Westchester was occupied by German farmers dating back to the mid-19th century. Samuel Insull purchased the land in 1924 with plans to recreate an English style town. As a result, the town's name and the majority of its street names are of English origin. The Great Depression slowed construction in the ensuing decade, although the population continued to grow, largely aided by the presence of the western terminal of Chicago's rapid transit line. The extension of the line was removed in 1951. However, the Eisenhower Interstate System's creation in 1956 led to the construction of nearby expressways I-290 and I-294, providing residents with convenient travel. Expansion has consumed nearly all open land within the village, save for the 85-acre (340,000 m^2) Wolf Road Prairie.

What is a Multi-Hazard Mitigation Plan?

Mitigation Plans form the foundation for a community's long-term strategy to reduce disaster losses and break the cycle of disaster damage, reconstruction, and repeated damage. The planning process is as important as the plan itself. It creates a framework for risk-based decision making to reduce damages to lives, property, and the economy from future disasters. Hazard mitigation is sustained action taken to reduce or eliminate long-term risk to people and their proper State, Indian Tribal, and local governments are required to develop a hazard mitigation plan as a condition for receiving certain types of non-emergency disaster assistance. Please visit the Mitigation Grant Programs page for more information on the specific plan requirements for the various mitigation grant programs, as well as FEMA funds available for mitigation plan development and mitigation projects from hazards.

Development of the Village of Westchester Multi-Hazard Mitigation Plan (MHMP).

Hazard mitigation is any action that reduces the effects of future disasters. The primary purpose of hazard mitigation planning is to identify community policies, actions, and tools for implementation over the long term that will result in a reduction in risk and potential for future hazard losses within the Village. This MHMP was prepared within the framework of standard planning processes utilizing technical expertise, public and agency involvement, and comprehensive review and incorporation of existing plans.

The plan information was started in 2009 by solicitation of public response from a flood in 2008. In the 2009 election the makeup of the village board changed and a dedication to joining the Community Rating System (CRS) was started. As the Trustee who initiated the project moved forward, it was apparent that a mitigation plan was needed as a requirement of the CRS. A Team was formed with additional members added on. The team members are:

Walter J Novak – Village Trustee
Sam D Pulia - Village President
Hope Garrett – Village Project Engineer
Dennis DiPasquale – Building Director, Mitigation Officer
Andrew Natanek – Westchester Resident

Technical Expertise:

Financial resources were not available to hire a consulting firm to aid in development of the plan, so review of current multi hazard mitigation plans:

- Village of Glenview Multi-Hazard Mitigation Plan
- Calumet City Multi-Hazard Mitigation Plan

and using FEMA documents were also tools:

- Getting Started – building support for mitigation planning – FEMA 386-1, September 2002.
- Local Multi-Hazard Mitigation Planning Guidance, July 1, 2008
- Developing the Mitigation Plan – developing mitigation action and implementing strategies, FEMA 386-3, April 2003.

and conversations with direction from members of the following state agencies:

- IDNR – Illinois Department of Natural Resources
- IEMA – Illinois Emergency Management Agency

led to developing the framework and template of the plan. As the team began to review what the contents should be we used current studies based and information from:

- Hancock Engineering
- Chris Burke Engineering
- V3 Engineering

These studies included but not limited to:

- Expansion of the Mayfair Reservoir – Hancock Engineering
- Storm Water Flow of water basins – V3 Engineering
- Storm Water Line review – Chris Burke Engineering
- Mapping of Storm Water Lines – Chris Burke Engineering
- Deep Tunnel Review – Hancock Engineering

Information from other documents and agencies were:

- 2010 Illinois Natural Hazards Mitigation Plan
- 2007 Cook County Storm Water Management Plan
- Metropolitan Water Reclamation District (MWRD) (2008 water study)

Information can be found on the above topics at:

- www.westchester.gov (board meeting minutes and under other information)

- www.fema.gov
- www.idnr.gov

Public and Agency Involvement

As stated earlier Westchester began its mitigation quest through application in the Community Ranking System (CRS) as administrated by the NFIP (National Flood Insurance Plan) in 2009. The process started with an audit of properties by Paul Osman (representative of IDNR). A meeting with Paul form the IDNR was held on September 24, 2009 and the following was found:

- Two properties had structures not in compliance with the rules of constructing structures ion the flood plain.

The Village worked with the residents to have these properties comply, which was accomplished, and the properties then passed the audit. This was the beginning point of how the Village works with the public and various agencies to understand mitigation. Working through the CRS system it was found, in early 2011, that due to Westchester having ten or more multiple response properties that in order to obtain a ranking in the CRS system Westchester would have to have a multi-hazard mitigation plan and has to be passed by the Village Board. Table MP-1 lists communication with the public on mitigation topics:

Table MP-1

Date	Type of Meeting	Items Discussed	Public Involvement
1/29/2009	FEMA	Discuss flood plain, Flood Insurance	Yes
3/5/2010	Mailing	Flood Plain letter to residents	Yes
8/4/2009	BOD	Building permit review	Yes
9/15/2009	BOD	Discussion of Leaf Bag Program	Yes
9/24/2009	Meeting	Met with IDNR to discuss CRS	No
1/26/2010	BOD	Severe weather awareness program	Yes
3/30/2010	Town hall	Police/Fire presentation on safety	Yes
7/27/2010	Flood Disaster	Discussed Flood of July 24, 2010	Yes
8/3/2010	BOD	Discussed Overhead sewer program	Yes
9/28/2010	BOD	Sanitary system review Project	Yes
3/8/2011	BOD	Creation of the Green Committee	Yes
7/26/2011	BOD	Back of generators for reservoir project discussed	Yes
1/3/2012	Mailing	Newsletter with flood plain information	Yes
1/10/2012	BOD	Discussed Flood Mitigation Plan	Yes
10/2010	Town hall	Discussed building codes including flood plain	Yes
11/2009	BOD	Reviewed televising by National power rodding	Yes

The flood of July 23-24, 2010 was the main movement for solicitation of information and the start for looking at elements of a mitigation plan. A meeting was held on July 27, 2012, which reviewed the actions of the flood and what residents need to do move forward. Over 3000+ residents attended. Listening to residents, and hearing various points brought to discussion by Hancock Engineering, the following mitigation components came to the plan:

- Expanding the Mayfair reservoir
- Overhead Sewer program

- Continual investment in our storm/sanitation sewer infrastructure

These components will be discussed later.

Since public information and feedback has already been obtained as mentioned earlier and the continuous discussion of items and issues, as described in table MP-1, were on going, the Village of Westchester was comfortable in moving forward with completing a MHMP. The MHMP team communicated mainly through e-mail and conversations, with some informal meetings, to discuss the various components of the plan.

The MHMP was introduced for discussion in the March 13, 2012 Village Board COW meeting and was on display at the Village Hall for public review and on the Village of Westchester website for public review. The material was on display for about two weeks, and voted on and passed on March 26, 2012. The concept of the MHMP was discussed in the January 24, 2012 Village Board COW meeting.

In 2010 the Municipal Group of Elected Officials (MGEO) was formed which consisted of Trustees from neighboring villages get together to discuss issues. One of the ongoing issues was hazard mitigation. MGEO is dedicated to coordinate efforts to help each other and inform the residents of member villages on safety and reduction in damage in case of a hazard. The member villages currently are:

Village of Westchester
Village of Broadview
Village of North Riverside
Village of Riverside
Village of Brookfield
Village of Maywood
Village of Franklin Park

Part of the goals of the MGEO is to have visitors from various governmental agencies come and address the group. This was accomplished by Paul Osman form the IDNR who came and addressed our group on flood mitigation in 2011. Other members who have addressed the group have been:

- Metropolitan Water Reclamation District
- Insurance

In 2012 the MGEO is hosting a multi-community town hall meeting to discuss topics involving hazard mitigation and electric aggregation.

It is through the MGEO meetings and meetings with the MWRD, IDNR and others, that Westchester was able to develop components to the MHMP, i.e. Rain Barrel program, and complete it's MHMP.
The Village of Westchester MHMP is the villages commitment to understand the risks the village has; educate and inform the villages residents on safety during these hazards; set mitigation goals for the village to obtain to help reduce damage and increase public safety prior to during and after a hazard. It is the concept of the village to incorporate some or all elements of this plan in the following (not limited to) areas:

Economic Development, Planning and Zoning, Public Education, Project Funding, Project Development, continual membership in NFIP, maintain CRS rating.

The cost benefit for each mitigation program has been reviewed (where applicable) and is discussed in a later section.

Comprehensive Review and Incorporation of Existing Plans

A comprehensive analysis of the potential loss of life, personal injury, economic injury, and property damage resulting from hazards was conducted by assessing the vulnerability of people, buildings, and infrastructure. As part of the process, the Village reviewed existing studies, reports, and other material to determine the Village's hazard vulnerability and mitigation measures that can be used to reduce the impact of these hazards. The following was reviewed and incorporated into the MHMP where appropriate:

- 2010 Illinois Natural Hazards Mitigation Plan
- 2007 Cook County Storm Water Management Plan
- Village of Westchester five year infrastructure plan
- Village of Westchester top 25 streets for replacement plan
- Village of Westchester Emergency Operations Plan
- Metropolitan Water Reclamation District 2008 water infiltration study

Key/critical government buildings are as follows:

Village of Westchester Village Hall – 10300 Roosevelt Road
Village of Westchester Park District – Community Center – 10201 Bond Street
Mayfair Fitness Center – 10835 Wakefield
Village of Westchester Library – 10700 Canterbury Street
Westchester School District 92 ½ - District Office – 9981 Canterbury Street
Primary School – 2400 Downing Avenue
Intermediate School – 10300 Canterbury Street
Middle School – 1620 Norfolk Avenue
Village of Westchester cooling/warming center – 10300 Roosevelt Road
Village of Westchester Police Department (including jail) – 10300 Roosevelt Road
Village of Westchester Fire Department – Station 1 – 10300 Roosevelt Road
Station 2 – 10760 Cermak Road
Village of Westchester Public Works – 10300 Roosevelt Road
Emergency 911 Center – 10300 Roosevelt Road
Village of Westchester reservoir pumping station – Mayfair Fitness Center, 10835 Wakefield
Divine Infant School – 1640 Newcastle
Divine Providence School – 2500 Mayfair Ave.

The only key/critical building that partially is in the flood plain is the Village of Westchester Park District Mayfair Fitness Center. No key/critical building or part of it is in the regulatory floodway. All key/critical building are susceptible to damage in the following natural hazards (hazards):
Flooding, severe storms, tornadoes, earthquakes, extreme heat and cold, blizzards

Key/critical buildings are not susceptible to damage from drought, but the surrounding ball fields and other recreation land may be susceptible to damage in the following key/critical building areas:
Village of Westchester Park District – Community Center and Mayfair Fitness Center
Westchester School district 92 ½ - Primary School, Intermediate School and Middle School.

Mitigation projects not accepted – During the development of this plan mitigation projects were reviewed which were not accepted as projects to be pursued. These projects were not accepted due to one or all of the following:

- Cost benefit – The cost benefit to the residents did not exceed the cost of the project.
- Scope – The scope of the project was not in line or could not fit in the boundaries of the Village of Westchester
- Feasibility – The project was outside the limitations of what the Village of Westchester could handle.

For example the idea of building an additional reservoir on the North side of town which would have been north of Roosevelt Road, east of Wolf Road and West of Gardner road was suggested. The reservoir would have to be similar to the Mayfair Reservoir (66 million gallons) and would entail acquisition and demolition of blocks of residential homes, as there is not open space in that section of town, and placing it near the stream to empty into. Also a pumping station would have to be constructed to achieve this. The cost, scope and feasibility elements were not met on this project.

Components of a Multi Hazard Mitigation Plan

The following will be addressed in this plan:

1) Identifying hazards
2) Defining the hazards as they relate to Westchester
3) What should be done in these hazards
4) What mitigation programs are currently implemented or will be implemented in the future or ones that are being reviewed for implementation
5) Plan for monitoring mitigation programs
6) Plan for monitoring multi hazard mitigation plan
7) Public outreach program
8) Various other information on hazards

Damage assessments from natural hazards

Flooding by far created the most dollar loss in the Village of Westchester. The results of the July 23-24, 2010, flood are as follows:

- Number of resident claims form flood damage with the range of 1” – 150” was over 2,800
- Residential dollar damages equated to over $30,000,000 (Floodsmart.gov) for Westchester
- Key/critical governmental structures had $795,000 in damage (PA assistance form)

Severe Storms was second with damage costs over $3,000,000 as measured by June 2010, storms that was accompanied by high minds and/or a micro burst. The damage was concentrated in a small section of town.

Blizzards (as measured by the occurrence in February 2011), extreme heat and cold, drought, earthquakes had minimal dollar damage.

Westchester has not experienced a tornado, but dollar damages concerning tornadoes are discussed in the section that reviews each hazard.

Village of Westchester reaction to hazards

How the Village of Westchester reacts in the time span before a disaster strikes, to a few hours after, will substantially influence the impact of the disaster on local government. In major emergency situations, the Village of Westchester cannot wait - even for a few hours - for state assistance or direction. They must be prepared to immediately mobilize and coordinate the operations of available local forces in order to minimize the loss of life and property. For this reason a major responsibility for emergency and disaster preparedness must be assumed by the municipal agencies. With that in mind the Village of Westchester adopted Resolution R43 – Westchester Emergency Operations Plan. For further information on this plan contact must be made to one or all of the following:

- Village Manager
- Village Police Chief
- Village Fire Chief

RISK ASSESSMENT

The Village of Westchester used the following methods to determine hazard and risk information:

1) The various natural hazards that the Village of Westchester is subject to are identified and profiled. The State of Illinois as identified the following hazards as hazards that occur in Cook County as identified in the 2010 Illinois Natural hazards Plan: Floods, Sever Storms, Winter Storms and Extreme Cold, Extreme Heat, Tornadoes, Earthquakes, Drought. The Village of Westchester has adopted the Risk Assessment and Hazard Identification for this plan, from the 2010 Illinois Natural Hazards Plan.
2) Reviewing the State hazard mitigation plan and local or regional reports, plans, flood ordinances, and land use regulations among others.
3) Talking to experts form Federal, State and local agencies.
4) Reviewing past events and declared disasters
5) Searching the internet and newspapers, and
6) Interviewing long-time residents and consulting historical societies.

Some, but not an all, list of resources are as follows:

- the use of FEMA and other web based databases and information sources that identify hazards by geographic locations
- US Army Corps of Engineers flood data
- Flood Insurance Rate Maps (FIRM)
- Flood Insurance Studies (FIS)
- GIS
- Members of The Prairie School House

- IDNR
- IEMA

The various natural hazards that the Village is subject to are identified and profiled. They are listed as follows:

- Floods
- Severe Storms
- Winter Storms and Extreme Cold
- Extreme Heat
- Tornadoes
- Earthquakes
- Drought

Natural Hazards Not Identified Within the Plan

Some natural hazards have little or no effect on Westchester and were not addressed in this Plan. They include avalanche and landslides, coastal storms and hurricanes, mine ubsidence or karst, and volcanoes or wildfire. While, each of these hazards were determined to present little to no threat within Westchester, they are not precluded from being incorporated into future updates of the Plan as new information is discovered.
The following hazards were excluded within the Plan:

- **Avalanche and Landslides.** The topography and climate of the Westchester area are not conducive to the occurrence of avalanches. No historical events have been recorded in the Westchester area.
- **Coastal Storms and Hurricanes.** The Westchester area is more than 900 miles from the Gulf of Mexico coast and over 875 miles from the Atlantic Ocean coast. The immediate effects of coastal storms (hurricanes, storm surge, and tsunamis) are not felt in the Winnebago County area. The secondary effects or remnants of hurricanes may produce severe thunderstorms and flooding in the area and those hazards are addressed by the Plan.
- **Subsidence.** Mine subsidence is defined as the collapse of underground coal mines resulting in direct damage to a surface structure. Land subsidence occurs when the ground sinks to a lower than normal level. Westchester has no active mines; therefore this does not present a threat and is not covered in this Plan.
- **Volcanoes.** More than 50 volcanoes in the U.S. have erupted one or more times in the past 200 years. Volcanoes produce a wide variety of hazards that can take lives and destroy property. Active volcanoes in North America are in California, Oregon, Washington, Alaska, Mexico, Canada, and the Caribbean Islands. Large explosive eruptions can endanger people and property hundreds of miles away and even affect global climate. However, there are no active volcanoes within 950 miles of the Westchester area. Volcanic activity as a hazard is judged to be minimal and will not be addressed in this Plan.
- **Wildfire.** A wildfire is an uncontrollable burning of grasslands, brush, or woodlands. The potential for wildfire depends upon surface fuel characteristics, weather conditions, recent climate conditions, topography, and fire behavior. Westchester does not have a history of wildfire and will not be addressed in this Plan.

Data sources utilized to determine which hazards to include or exclude within the Plan included: hazard data, reports, plans, flood ordinances, past hazard events, flood insurance claims, land use regulations for hazard data, local records of the emergency management offices, local newspapers, historical knowledge of Planning Team participants, local officials and community members, and HAZUS-MH.

FLOODING

History of flooding

There have been multiple floods (as determined by Declarations of Disasters by the Federal Government) as listed in table FL-1, with the worst being on July 23, 2010, through July 24, 2010 (Federal Disaster Number 1935). Statistics on the July 2010 flood is as follows:

Amount of rainfall:

- 10.25 inches in a seven hour period (as determined by measurements by Westchester Public Works).
- 6.9 inches in a 12 hour time period (as determined by official readings at Chicago O'Hare airport).
- 6.8 inches in a 12 hour time period (as determined by official readings at Chicago Midway Airport).

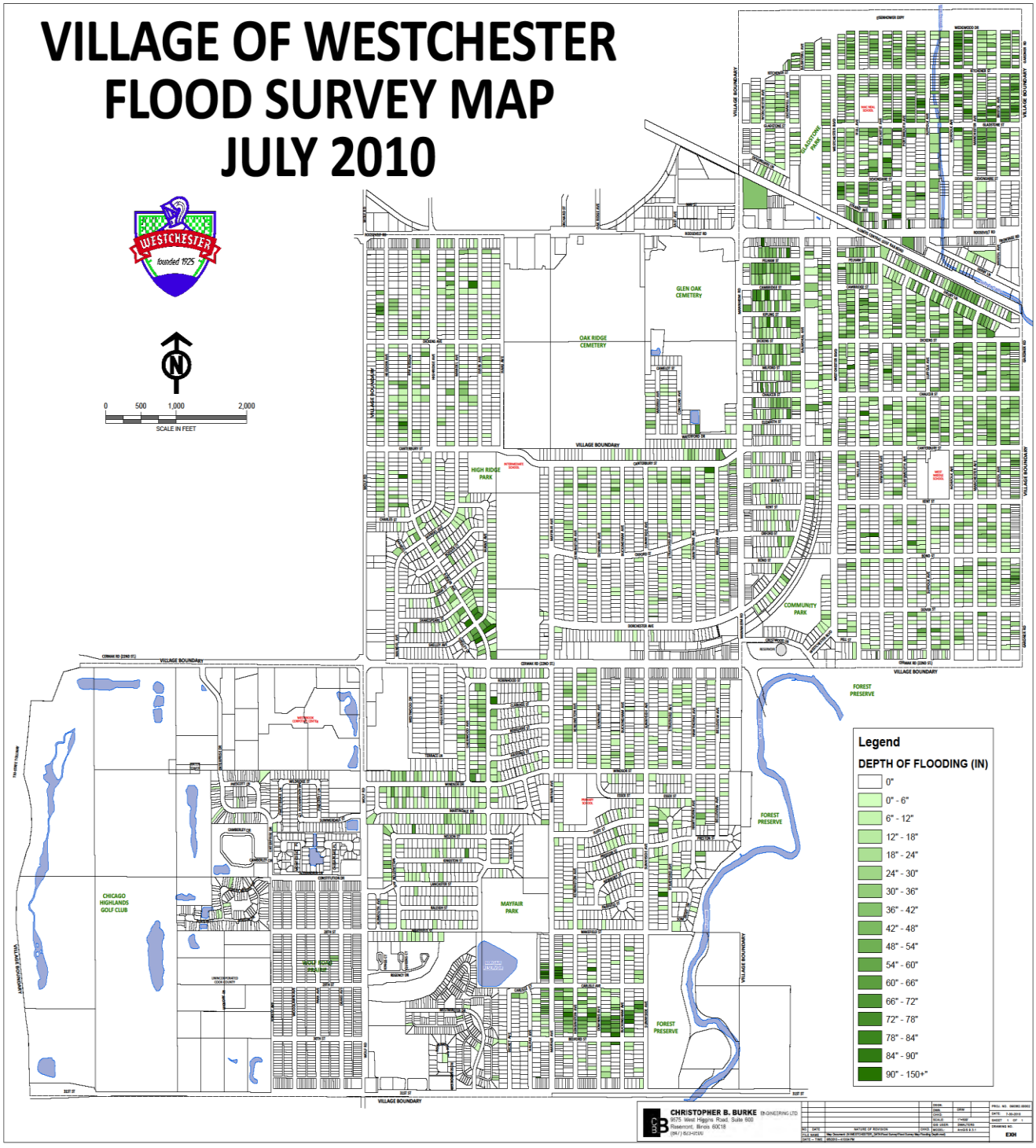
Amount of homes affected: Over 3,000

Range of flood levels in homes: 6" – 150+" (see map FL-2)

Table FL-1

Date	Storm Type	Damage	Disaster Declaration
July 23 - 24, 2010	Severe Thunderstorm	Flooding in streets and homes	Federal 1935
June 18, 2010	Microburst	House damage, trees uprooted	None
October 2008	Severe Thunderstorm	Flooding in streets and homes	Federal 1800
September 2007	Severe Thunderstorm	Flooding in streets and homes	Federal 1729
September 1997	Severe Thunderstorm	Flooding and minor damage	FEMA 1188
July 1996	Severe Thunderstorm	Flooding and minor damage	FEMA 1129-DR
July 1993	Severe Thunderstorm	Flooding and minor damage	FEMA 997-DR
August 1987	Severe Thunderstorm	Flooding and minor damage	FEMA 776-DR
October 1986	Severe Thunderstorm	Flooding and minor damage	FEMA 643-DR
June 1981	Severe Thunderstorm	Flooding and minor damage	FDAA 3068-EM
June 1976	Severe Thunderstorm	Flooding and minor damage	FDAA 583-DR
April 1973	Severe Thunderstorm	Flooding and minor damage	OEP 373-DR
September 1972	Severe Thunderstorm	Flooding and minor damage	OEP 351-DR
April 1967	Severe Thunderstorm	Flooding and minor damage	OEP 227-DR

FL-2



The amount of damage and property loss for both the Village of Westchester and the residents of Westchester exceeded $30,000,000. Understanding flooding and necessary mitigation to be taken by the Village of

Westchester and the residents of Westchester is an important step to minimize the property loss and increase the safety of the residents of this village.

Westchester has three water ways which run through its area:
Addison Creek – Addison Creek runs on the middle to north side of Westchester and is on the eastern side of the Village. (See map FL-3)
Salt Creek – Salt Creek runs on the South side and is also mainly on the Eastern side. (See map FL-3)
Mastodon Creek – which the Mayfair reservoir empties into, and the creek then runs into Salt Creek. (See map FL-3)

Westchester has flood plains and regulatory flood ways in its boundaries which are based on the occurrence of a 100 year flood. This is shown on a FIRM (Flood Insurance Rate Map) see map FL-3

A flood plain is land area which is situated adjacent to an open body of water. The body of water can be any significant source of water: a river, lake, stream or ocean. The flood plain is subject to flood whenever the water level rises, for instance, following a significant rainfall or rainfall upstream. This means that a flood plain is subject to repeated flooding rather than having flooding occur as an extraordinary event.

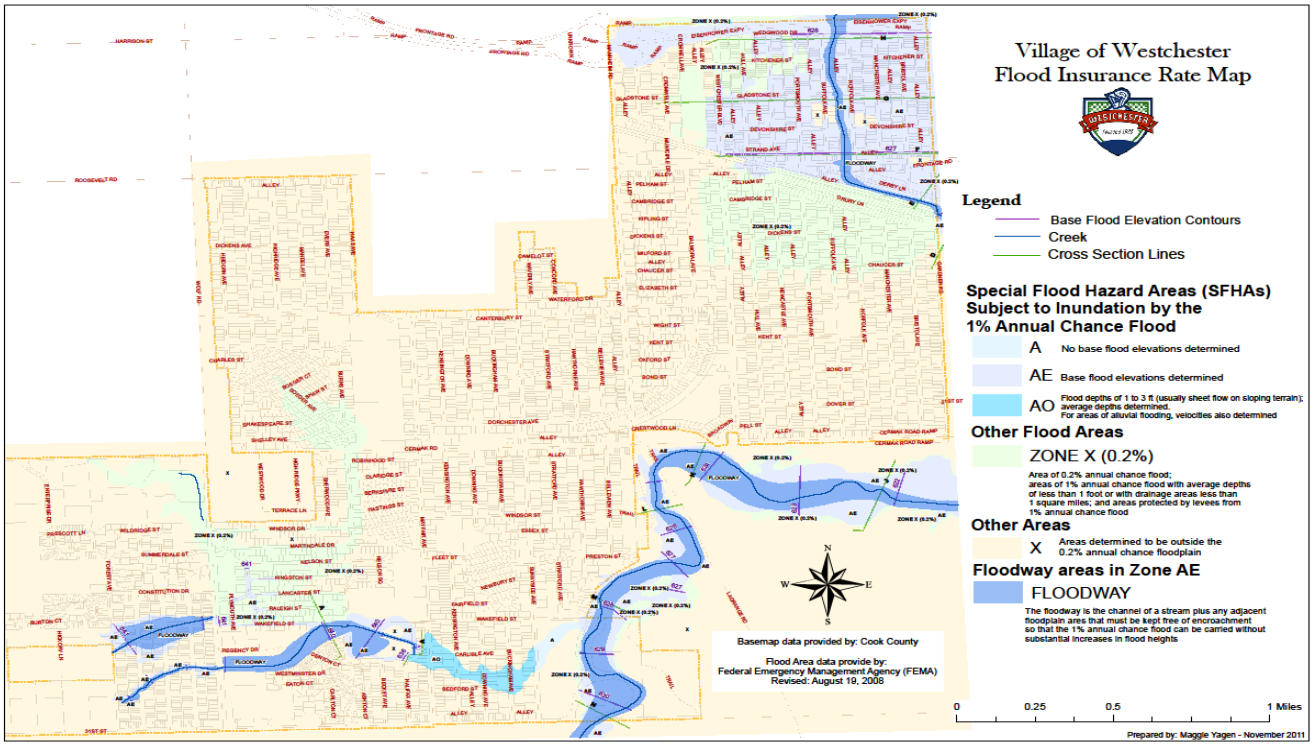
A "Regulatory Floodway" means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height. Communities must regulate development in these floodways to ensure that there are no increases in upstream flood elevations. For streams and other watercourses where FEMA has provided Base Flood Elevations (BFEs), but no floodway has been designated, the community must review floodplain development on a case-by-case basis to ensure that increases in water surface elevations do not occur, or identify the need to adopt a floodway if adequate information is available.

A 100-year flood is a flood event which has the statistical possibility of occurring once every 100 years. This does not mean that a 100-year flood will inevitably occur every century or that a full century will pass between 100-year flood events. According to calculation, in the designated area there is a one percent chance of a storm of this magnitude, estimated to be equal to a Category 3 hurricane, each year. A Special Flood Hazard Area is designated by the Federal Emergency Management Agency (FEMA) to be at high risk of being inundated by a 100-year flood.

Any development in Westchester is based in the flood plain and must meet requirements by Westchester Ordinance 14.20.010 (see appendix x).

To better understand how to read a FIRM please review “FEMA: Flood Hazard Mapping – How to Read a Firm, online tutorial” at www.fema.gov/media

FL-3 (Based on a 100 year flood)



Causes of flooding

Spring Thaw - During the spring, frozen land prevents melting snow or rainfall from seeping into the ground. Each cubic foot of compacted snow contains gallons of water and once the snow melts, it can result in the overflow of streams, rivers, and lakes. Add spring storms to that and the result is often serious spring flooding.

Heavy Rains - Several areas of the country are at heightened risk for flooding due to heavy rains. The Northwest is at high risk due to La Niña conditions, which include snowmelts and heavy rains. This excessive amount of rainfall can happen throughout the year, putting your property at risk.

Flash Floods - Flash floods are the #1 weather-related killer in the U.S. since they can roll boulders, tear out trees, and destroy buildings and bridges. A flash flood is a rapid flooding of low-lying areas in less than six hours, which is caused by intense rainfall from a thunderstorm or several thunderstorms.

Flooding occurs when a storm has rainfall usually 3" or more in a short period of time (less than one hour), or 6" or more in a longer period of time (between 1 and 6 hours).

The types of flooding that occur in Westchester are:

Back flow – that is when rain flow enters the storm sewers and the amount of water exceeds capacity for water to flow through the storm sewer and causes water to back flow to the house. When a house has a conventional storm sewer system, (typical in Westchester houses) the water flows backwards to the house and through the drain in the basement, causing damage. This can cause large volumes of water to enter the structure. Houses that have overhead sewers prevent the typical back flow from happening.

Seepage – this is water that actually seeps through the foundation and enters the structure through the foundation walls or floors usually by pressure of the water moving upwards in the round and finding its way through cracks in the foundation. This usually does not cause large volumes of water to enter the structure.
Overflow – This is when creeks overflow their banks and the water follows the route of the flood plain and ways, which if structures are built in that area, the water will enter the structure through doors or windows. This can cause large volumes of water to enter the structure.

Future expectation for flooding in Westchester is moderate - high. (NOAA)

Vulnerability

Safety – As described in table 1 – 1 in the Severe Storms section, death by flooding were not evident. This does not mean that the threat is not there. Death or sever injuries can be caused very quickly by drowning, electrocution, debris, and other means.

Health – Issues may arise from wading through polluted water. Infection, tetanus and other diseases can be obtained from pollute water and what is underneath the rising and/or polluted water.

Damage – Houses, commercial buildings, vehicles, trees, and other structures could be seriously damaged or destroyed during the flood. After the flood mold and rot could wear away at structures and is often unseen.

Economic – The major issue is the destruction of property. Stores could be temporary or permanently damaged which would cause prolong closing or relocation. Access to the stores could also be temporary or permanently closed again causing prolong closing or relocation.

SEVERE STORMS

Severe storms are not winter storms, they are severe thunderstorms that are most likely to occur in the spring and summer months during the afternoon and evening hours, however, they can occur year round and at all hours. All thunderstorms produce lightning and are dangerous. According to FEMA, on average 300 people are injured and 80 people are killed each year by lightning in the United States. Other associated dangers of thunderstorms include tornadoes, strong winds, hail, microbursts, and flash flooding. Flash flooding is responsible for more than 140 fatalities per year, which is more than any other thunderstorm hazard. The effects of flooding and tornadoes caused by local storms are covered under separate sections.

Thunderstorms occur when there is a collision of moist, warm air moving north from the Gulf of Mexico with colder fronts moving east from the Rocky Mountains. They may occur singly (single cells), in clusters (multiple cells), or in lines and in the course of hours it is possible for multiple storms to affect one location for an extended time. (2010 State Plan, Page III-12)

Lightning, which occurs during all thunderstorms, can strike anywhere. Generated by the buildup of charged ions in a thundercloud, the discharge of a lightning bolt interacts with the best conducting object or surface on the ground. Lightning kills more people than tornadoes or hurricanes. Most lightning fatalities and injuries occur outdoors at recreation events and under or near trees. Illinois ranks high for lightning fatalities; over the past 40 years, lightning in Illinois has killed 96 people. As a result IEMA and NWS established the Lightning Safety Awareness Week as a public education project. (2010 State Plan, Page III-29)

High winds produced during thunderstorms include downbursts and microbursts. These are strong, concentrated, straight-line winds created by falling rain and sinking air that can reach speeds of 125 mph (200 km/h). A downward rush of cool descending air causes microbursts from a thunderstorm. The air rushing to the ground may look like a cloud. Once the air strikes the ground at a high speed, the air has to go somewhere, which is usually in all directions. The horizontal spreading of this air along the ground is termed straight-line winds. These winds may be 100-150 miles per hour, which are as strong as an EF1, EF2, or EF3 tornado.

Hailstones are ice crystals that form within a low-pressure front due to warm air rising rapidly into the upper atmosphere and the subsequent cooling of the air mass. The size of hailstones is a direct function of the severity and size of the storm. Significant damage does not result until the stones reach 1.5 inches in diameter, which occurs in less than half of all hailstorms.

Area Impacted

All counties in the State of Illinois are susceptible to severe storms; over 25% of the population in a county might experience a severe storm at any one time (2010 State Plan, Page III-12). Compared with other atmospheric hazards such as tropical cyclones and winter low-pressure systems, individual thunderstorms affect relatively small geographic areas. The average thunderstorm system is approximately 15 miles in diameter (75 square miles) and typically last less than 30 minutes at a single location. However, weather-monitoring reports indicate that coherent thunderstorm systems can travel intact for distances in excess of 600 miles.

Therefore, the entire Village, which is covered by this MHMP, is susceptible to severe storms.

Magnitude and Severity

Generally, thunderstorms and their accompanying hazards do not warrant a disaster declaration or a lot of documentation. The National Weather Service classifies a thunderstorm as “severe” if its winds reach or exceed 58 mph, it produces a tornado, or it drops surface hail at least 0.75 inch in diameter. Of about 100,000 thunderstorms that occur annually in the United States, approximately 10 percent are classified as severe.

Cook County has been rated as "severe" for severe storms in the 2010 State Plan.

Historical Events

In July 23 -24, 2010, Westchester experienced the worst flood in its history as a result of a severe thunderstorm. The storm began around 5:00 p.m. on July 23, 2010, and ended around 7:00 a.m. on July 24, 2010. During the height of the storm approximately 10.25" (un-official rain gauge at Westchester Village Hall) fell in a 7 hour period. This resulted in over 3,500 homes that experienced flooding, and the levels were from 1" sub level to 15" first floor. A federal disaster (1935) was declared.

Severe thunderstorms that resulted in damage and substantial rainfall were as follows:

Table 1 - 1

Date	Storm Type	Damage	Disaster Declaration
June 18, 2010	Microburst	House damage, trees uprooted	None
October 2008	Severe Thunderstorm	Flooding in streets and homes	Federal 1800
September 2007	Severe Thunderstorm	Flooding in streets and homes	Federal 1729
September 1997	Severe Thunderstorm	Flooding and minor damage	FEMA 1188

July 1996	Severe Thunderstorm	Flooding and minor damage	FEMA 1129-DR
July 1993	Severe Thunderstorm	Flooding and minor damage	FEMA 997-DR
August 1987	Severe Thunderstorm	Flooding and minor damage	FEMA 776-DR
October 1986	Severe Thunderstorm	Flooding and minor damage	FEMA 643-DR
June 1981	Severe Thunderstorm	Flooding and minor damage	FDAA 3068-EM
June 1976	Severe Thunderstorm	Flooding and minor damage	FDAA 583-DR
April 1973	Severe Thunderstorm	Flooding and minor damage	OEP 373-DR
September 1972	Severe Thunderstorm	Flooding and minor damage	OEP 351-DR
April 1967	Severe Thunderstorm	Flooding and minor damage	OEP 227-DR

Frequency
Of about 100,000 thunderstorms that occur annually in the United States, approximately 10 percent are classified as severe. Illinois experiences 40 to 60 thunderstorm days per year

(http://www.srh.noaa.gov/key/HTML/tstmhazards.htm) and thunderstorm events in the Cook County area occur on average 60 to 70 times per year (Calumet City Hazard Mitigation Plan). As stated above, over 25% of the population in a county might experience a severe storm at any one time; therefore, the Village is susceptible at any time during the storm season.

According to the Illinois State Climatologist's website, the average number of hail days in the Chicago area is 2.1 per year. Of the 3,951 times hail has occurred in Illinois since 1950, storms with hailstones greater than 2 inches occurred 327 times, or just under 1% of the storms had hail large enough to cause damage. (2010 State Plan, Page III-29)

Between 1993 and 2008, 6 fatalities and 22 injuries due to lightning have been reported in Cook County (NCDC Storm Event Database). Illinois experiences nearly 650,000 lightning strikes each year (2010 State Plan, Page III-29).

Vulnerability
Safety: The threat to life varies by the cause of death. Between 1995 and 2000, the National Weather Service reported that 20 people in Illinois were killed by flash floods, wind and lightning brought by thunderstorms (6 in Cook County). Hail rarely causes loss of life. (Calumet City Hazard Mitigation Plan, Page 2-31)

The number of deaths and injuries reported in Cook County are summarized in Table 2-1. The leading cause of death and injury in the County from thunderstorms is by lightning and high wind. Most of these deaths can be prevented through safe practices.

Table 2-1

	Lightning		Wind		Flash Flood	
Year	**Death**	**Injury**	**Death**	**Injury**	**Death**	**Injury**
1993	1	5	0	0	NR	NR
1194	1	1	0	0	NR	NR
1995	1	2	2	0	0	0
1996	2	3	0	0	0	0
1997	0	1	0	0	0	0
1998	0	0	0	6	0	0
1999	0	2	0	0	0	0
2000	0	1	1	0	0	0
2001	1	1	1	9	0	0
2002	0	1	4	4	0	0
2003	0	1	0	2	0	0
2004	0	0	0	0	0	0
2005	0	1	0	3	0	0
2006	0	2	0	13	0	0
2007	0	1	1	3	0	0
2008	0	0	0	7	1	0

Source: NCDC (nr = no record)

Much information has come out over the last 20 years about lightning safety. Before 1990, an average of 89 people were killed by lightning each year. By 2000, this number had dropped to 52. (Calumet City Hazard Mitigation Plan, Page 2-31)

Lightning kills more people than tornadoes or hurricanes. Most lightning fatalities and injuries occur outdoors at recreation events and under or near trees. Nationwide it is estimated that 25 million cloud-to-ground lightning flashes occur each year, 1,000 people are injured and 80 are killed (Illinois Hazard Mitigation Plan, page III-29).

In the almost 40- year period from 1970 to 2008, death tolls and injuries from severe winds exceeded tornado deaths. In this period there was only one year for which the death tolls from tornadoes exceeded that of severe winds and only four years for which the number of reported injuries exceeded from tornadoes exceeded that of severe winds. (NCDC Storm Event Database).

Hail occurs frequently in Illinois averaging 74 times a year and 3,951 times since 1950. There have been no deaths, but 23 injuries (Illinois Hazard Mitigation Plan, page III-29). None of the reported injuries occurred in Cook County.

Overall Safety Hazard: Moderate

Health Hazard: No special health problems are attributable to thunderstorms, other than the potential for tetanus and other diseases that arise from injuries and damaged property.

When lightning strikes a human being, serious burns or death are the common outcomes. For those who survive, their injuries can lead to permanent disabilities. 70% of the survivors suffer serious, long-term effects, such as memory loss, sleep disorders, depression, and fatigue.

Overall health hazard: Low

Economic: Thunderstorms can impact transportation and utilities. Airplanes have crashed when hit by downbursts or lightning. Power lines can be knocked out by lightning or knocked down by wind and debris. Lightning can also cause power surges that damage appliances, electronic equipment and computers. However, many buildings have lightning rods and backup power systems that can recover quickly and the overall economic impact is low.

Flash floods cause localized flooding problems that could impact transportation and business.

Overall economic impact: Low to Moderate

Potential Losses

Thunderstorm winds cause more damage year-to-year than tornadoes. In 1993, thirty-eight (38) thunderstorm events caused an estimated $5.0 million in damage (minimum estimate), while 34 tornadoes caused just over $1.5 million in damage (maximum estimate). The damages caused by high winds have been relatively consistent from year-to-year in the State. (2010 State Plan, Page III-28)

There is a potential for severe storms with high winds and hailstones greater than 0.75 inches, those of which cause the most damage, to occur in Westchester at any time during the storm season. Wind and water damage can result from flying debris and large hailstones breaking windows in buildings and vehicles. Lightning can cause direct damage to structures (especially those without lightning protection systems) and can cause fires that damage trees and structures.

Straight-line winds can damage roofs, push autos off the road and possibly damage/destroy attached garages. Straight-line winds are the leading cause of wind related damage. Although they do not receive as much recognition as tornado events, high winds cause more damage year-to-year than tornadoes. (Calumet City Hazard Mitigation Plan, Page 2-30).

Hail does extensive damage: property damage over $73 million in the last 53 years (2010 State Plan, Page III-29). One study of insured losses from hail found that 75% of the dollar damage resulting from hail storms was in damage to a structure's roofing, 12% to awnings, 6% to exterior paint, 4% to glass and 3% to siding (Hail Loss Potential in the US, Page 2).

During the period 1994 – 2000, the insurance industry paid out $17.5 billion in claims, or an average of $2.5 billion per year. Sixty-six percent of the losses were to personal buildings, 15% to commercial buildings, and 19% to vehicles (IBHS website). Of the nation's "Top Ten" hailstorms between 1994 and 2000, number 4 was the May 18, 2000, storm in the Chicago suburbs. A total of $572 million was paid in property claims. (Calumet City Hazard Mitigation Plan, Page 2-30)

Power outages may also occur due to severe summer storms and due to winter ice storms. In recent years, northeastern Illinois has been adversely affected by numerous power outage events. Probably one of the worst was on July 11, 2011 when heavy storms knocked power out for more than 800,000 Commonwealth Edison customers in northeastern Illinois. The Illinois Commerce Commission reported that an estimated 400,000 customers were without power for up to four hours or more.

Commonwealth Edison said the outages from this storm were second only to one in 1998 when 861,000 customers lost power.

To prevent these problems local governments like the Village of Westchester need to work with Commonwealth Edison in developing a plan and schedule for tree trimming and for the maintenance of the electrical distribution infrastructure within the Village.

Future occurrence of severe storms in Westchester is high (NOAA, weather.com)

WINTER STORMS & EXTREME COLD

While the danger from winter weather varies across the country, nearly all Americans, regardless of where they live, are likely to face some type of severe winter weather at some point in their lives. Winter storms can range from a moderate snow over a few hours to a blizzard with blinding, wind-driven snow that lasts for several days. Many winter storms are accompanied by dangerously low temperatures and sometimes by strong winds, icing, sleet and freezing rain.

One of the primary concerns is the winter weather's ability to knock out heat, power and communications services to your home or office, sometimes for days at a time. Heavy snowfall and extreme cold can immobilize an entire region.

The National Weather Service refers to winter storms as the "Deceptive Killers" because most deaths are indirectly related to the storm. Instead, people die in traffic accidents on icy roads and of hypothermia from prolonged exposure to cold. It is important to be prepared for winter weather before it strikes.

According to the Illinois Emergency Management Agency, extreme winter weather is responsible for deaths of hundreds of people in the United States each year, primarily due to vehicle crashes, fires from improper use of heaters, overexertion, and exposure.

(**http://ready.illinois.gov/during/winterstorms.htm**).

A severe winter storm is defined as

- A snowstorm that produces six inches of snow within 48 hours or less,
- An ice storm which 10% of the cooperative National Weather Service stations in Illinois report glaze, and/or
- A snowstorm or ice storm in which deaths, injuries, or property damage occurs.

Severe winters are characterized by either extremely cold periods for one to two months in duration, or by severe ice storms or heavy snowfalls occurring repeatedly over a period of six to twelve weeks. The Westchester area is subject to lake effect snowstorms that develop from the passage of cold air over the relatively warm surface of Lake Michigan, which can cause heavy snowfall and blizzard conditions.

Winter storms can occur as heavy snowfalls, ice storms or extreme cold temperatures. Winter storms can occur as a single event or they can occur in combination, which can make an event more severe. For example, a moderate snowfall could create severe conditions if freezing rain and subsequent extremely cold temperatures followed it. The aftermath of a winter storm can impact a community or region for weeks, and even months.

Snow: Heavy snowfalls can range from large accumulations of snow over many hours to blizzard conditions with blowing snow that could last several days. The National Weather Service's snow classification is below. In addition to the problems caused by a snowstorm are the subsequent melting and possible flooding.

Snow Classifications

Blizzard - Winds of 35 miles per hour or more with snow and blowing snow, reducing visibility to less than ¼ mile for at least 3 hours.

Blowing Snow - Wind-driven snow that reduces visibility. Blowing snow may be falling snow and/or snow on the ground picked up by the wind.

Snow Squalls - Brief, intense snow showers accompanied by strong, gusty winds. Accumulation may be significant.

Snow Showers - Snow falling at varying intensities for brief periods of time. Some accumulation possible.

Snow Flurries - Light snow falling for short duration with little or no accumulation.

Source: National Weather Service

Ice Storms: An ice storm occurs when freezing rain falls from clouds and freezes immediately upon impact. Freezing rain is found in between sleet and rain. It occurs when the precipitation falls into a large layer of warm air and then does not have time to refreeze in a cold layer (near or below 32°F) before it comes in contact with the surface which is also near or below 32°F.

Area Impacted

Given the tendency for low temperatures, ice, and snow throughout the area, the entire Village, which is covered by this MHMP, is susceptible to severe winter storms.

Magnitude and Severity

Cook County has been rated as "severe" for severe winter storms in the 2010 State Plan.

Historical Events

One of the worst winter storms to impact the State was on January 26-27, 1967, when as much as 23 inches of snow fell on the Chicago area. Travel throughout northern Illinois was curtailed and areas to the south experienced a glaze of ice, which made travel virtually impossible until January 29. Fifty deaths were directly attributed to this storm.

In 1979, a Federal snow emergency was declared when the northern third of the State received 6 inches or more of snowfall between January 12 and 14. The heaviest snowfall, up to 20 inches, was recorded in the northeast quarter of the State, where traffic was paralyzed and transportation corridors closed.

The 1999 New Year's Day storm resulted in record snowfall across the northern half of the State. High winds and frigid temperatures caused blizzard conditions behind the snowfall which left 21.6 inches in Chicago, second only to the 1967 January storm.

From December 10 through December 31, 2000, the cumulative effects of severe winter storms caused extensive road closures, school closings and hazardous road conditions and severely taxed snow removal resources. During this time period, the Chicago area received a record 41.3 inches of snow.

On February 2, 2011 a blizzard recorded 20.2" of snow in less than a ten hour period causing Lake Shore Drive in Chicago to shut down and any cars on the drive were abandoned.

Cook County received Presidential disaster or emergency declarations for the winter storms of 1979, 1999, 2001 and 2011.

Frequency

During the 20th century, there were at least two severe winter storms in Illinois each year. Due to the geographic latitude, and its proximity to the Great Lakes, most of these would hit the Village of Westchester. The probability of a severe winter storm may be slightly higher for the northern half of the State (occurring more severely and more often), but all of Illinois has a high probability of a severe winter storm. While it is impossible to predict with any accuracy the probability of a severe winter storm, it is a near certainty that each winter will produce at least one or two severe winter storms.

Vulnerability

Safety: Winter storms bring hazardous driving and walking conditions and heart attacks due to exertion caused by shoveling snow. Even small accumulations of ice can be extremely dangerous to motorists and pedestrians. Bridges and overpasses are particularly dangerous because they freeze before other surfaces. About 70% of the injuries caused by snow and ice storms result from vehicle accidents and 25% occur to people caught out in the storm.

As seen in the Table 2-2, 71 people have been killed by snow, ice or extreme cold in Cook County over the last ten years. Certain populations are especially vulnerable to the cold, including the elderly, the homeless, and lower income families with heating problems. Overall safety hazard: Moderate

Deaths and injuries due to winter storms reported in Cook County since 1994.

Table 2-2

	Snow - Ice		Extreme Cold	
Year	**Death**	**Injury**	**Death**	**Injury**
1994	0	0	NR	NR
1995	0	0	NR	NR
1996	0	0	3	0
1997	5	0	6	0
1998	0	0	0	0
1999	1	0	1	0
2000	0	0	0	0
2001	1	0	0	0
2002	0	0	0	0
2003	0	0	4	0
2005	0	0	8	0
2006	0	0	8	5
2007	0	0	13	0
2008	0	0	23	0

Source: NCDC (nr = no record)

Health Hazard: Winter storms bring extreme cold, due to low temperatures and loss of heat during power outages. The effect of cold on people is usually made more severe by the impact of wind chill factors. Wind chill is reported as a temperature, it is a measure of how wind and cold feel on exposed skin. As the wind increases, heat is carried away from the body at an accelerated rate, driving down the body temperature.

Extreme cold can result in frostbite and hypothermia in both people and animals. Frostbite is damage to tissue caused by the effects of ice crystals in frozen tissue. Extremities (hands, feet, ears, and nose) with more circulation difficulties are most frequently affected.

Hypothermia is the lowering of the core body temperature. It is “clinically significant” when the body temperature is below 95°F. Severe hypothermia occurs when the body’s temperature drops below 85°F, resulting in unconsciousness and possibly death. Great care is needed to properly re-warm even mild cases of hypothermia.

Overall health hazard: Moderate

Economic: The major impacts of snow and ice storms on property are to utilities and roads. Power lines and tree limbs can be coated with heavy ice resulting in disrupted power and telephone service. Loss of power can cause businesses and stores to close until power is restored. Loss of access due to snow or ice covered roads has a similar effect. Since the Village is in a Northern climate, most people and businesses are prepared for the average winter storm. However, there is still a hefty public cost for snow removal, which was enough to trigger Presidential emergency declarations for Cook County for the snowstorms of 1999 and 2001

Overall economic impact: Low

Potential Losses:

Historically, roofs have collapsed due to heavy snow loads, but most buildings in the Village have been constructed with low temperatures, snow loads and ice storms in mind (e.g., good insulation and strong roofs). Winter storms do not have a major impact on buildings. Since severe winter storms can occur at any time, over any part of the Village, all property in the Village is vulnerable.

Future occurrence of a severe winter storm in Westchester is moderate. (NOAA)

EXTREME HEAT

Heat kills by pushing the human body beyond its limits. In extreme heat and high humidity, evaporation is slowed and the body must work extra hard to maintain a normal temperature.

Most heat disorders occur because the victim has been overexposed to heat or has over-exercised for his or her age and physical condition. Older adults, young children and those who are sick or overweight are more likely to succumb to extreme heat.

Conditions that can induce heat-related illnesses include stagnant atmospheric conditions and poor air quality. Consequently, people living in urban areas may be at greater risk from the effects of a prolonged heat wave than those living in rural areas. Also, asphalt and concrete store heat longer and gradually release heat at night, which can produce higher nighttime temperatures known as the "urban heat island effect."

A heat wave is an extended period of extreme heat, and is often accompanied by high humidity. These conditions can be dangerous and even life-threatening for humans who don't take the proper precautions.

The National Weather Service defines a period of extreme heat as 3+ consecutive days with 100+ degrees. The Village of Westchester has experienced extreme heat as shown in tale 2 – 3.

Table 2-3

Record heat in Westchester, IL

Date	Temperature
*July 3, 1911	100
*July 4, 1911	102
*July 5, 1911	102
*August 4, 1947	100
*August 5, 1947	100
*August 6, 1947	101
**June 20, 1988	104
**June 21, 1988	101
**June 25, 1988	103
**July 14, 1988	100
**July 15, 1988	102
**August 1, 1988	100
**August 2, 1988	100
July 12-16, 1995	106

(Source: www.crh.noaa.gov)

According to Weatherreports.com the average annual high temperature in the Village of Westchester is 83 degrees. Table 2 - 4 provides an illustration of Westchester's annual high temperature monthly averages that were calculated over a 37 year period.

In July, 1995 temperatures soared to record highs with the hottest weather occurring from July 12th to July 16th. The high of 106°F on July 13 was the second warmest July temperature (warmest being 110°F set on July 23, 1934) since records began at Chicago Midway International Airport in 1928. Nighttime low temperatures were unusually high. Record humidity levels also accompanied the hot weather. The heat index reached 119°F at O'Hare Airport and 125°F at Midway Airport during these four days. Most of the heat wave victims were the elderly poor living in the City of Chicago and Cook County, who either had no working air conditioning or could not afford to turn it on. Many older citizens were also hesitant to open windows and doors at night for fear of crime.

In response to the 1995 extreme heat disaster, communities throughout Cook County established "cooling centers" that would automatically open in the event of a "heat advisory". Many communities also set up special notification and outreach procedures for the elderly and low income residents that might need help during extreme temperatures. In the event of an extreme heat event, if the Village President determines it's necessary the Village would do a robocall to all residents informing them that the Cooling Center is open. This information is also provided on our website in our "News Alerts" and on the sign at the Fire Station. It should be noted that the Library and the Park District are also cooling centers. The library includes information on their cooling center in both the Village and Library Newsletters.

Table 2-4

Month	Annual	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Average High Temperature	59	28	34	44	57	69	80	84	82	75	62	48	35

(source:www.weatherreports.com/United_States/IL/60154)

Cook County has been rated as “high” for extreme heat in the 2010 State plan.

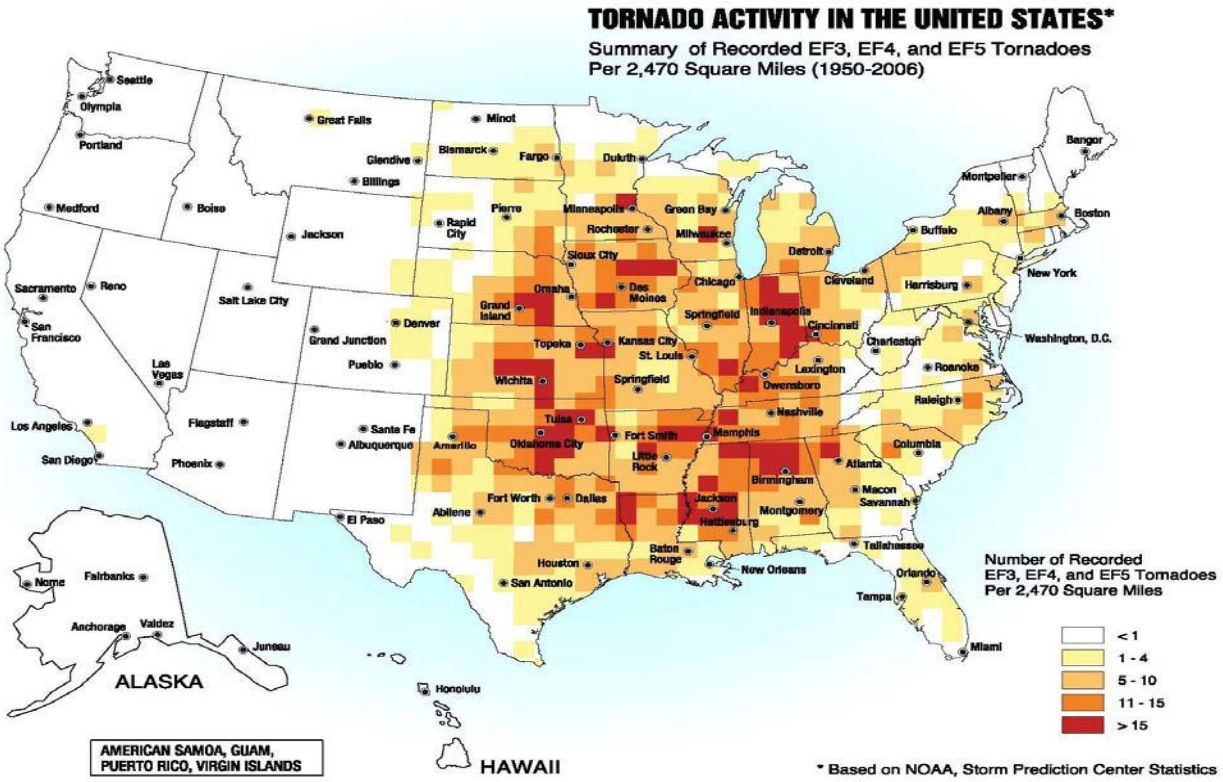
Future expectation of extreme heat during summer months in Westchester is high. (weather.com)

TORNADOES

A tornado is a swirling column of air extending from a thunderstorm to the ground. Tornadoes can have wind speeds from 40 mph to over 300 mph. A majority of tornadoes have wind speeds of 112 mph or less.

Tornadoes are most frequent in the Midwest and Southeast. The usual tornado season runs March through August; however a tornado can occur in any month. Tremendous destruction can occur in paths over a mile wide and 50 miles long with winds reaching 300 mph. The Enhanced Fujita Scale (Table 2-8) uses the categories of EF0 through EF5 to rate the strength of tornadoes in the United States estimated via the damage they cause. Implementation of this enhanced scale began February 1, 2007. None of the tornadoes recorded on or before January 31, 2007, will be re-categorized.

Illinois is situated on the northeast edge of "tornado alley," the tornado-prone area that extends approximately 400 miles on either side of a line from Fort Worth, Texas, to Detroit, Michigan. This area is the battleground of warm, moist air from the Gulf of Mexico and cold air from Canada, resulting in the world's leading breeding area for twisters. The greatest frequency of tornadoes in Illinois occurs in a wide band from Madison and St. Clair counties northeastward to Lake and Cook counties. The American Society of Civil Engineers (ASCE) set forth design wind speeds for the United States. Cook County is located in an area of highest design wind speed. The entire Village of Westchester is susceptible to tornadoes.



Based on data on tornadoes in the Illinois between 1950 and 2007, nearly 73% were rated as weak, 25% were rated as strong, and 2% were rated as violent. From the same data it is that weak tornadoes are typically 100 yards wide with a path length of 1 to 2 miles, strong tornadoes are usually 0.25 to 0.5 mile wide with a path length of up to 20 miles, and violent tornadoes are around 1 mile wide with path lengths greater than 20 miles. (2010 State Plan, Page III-13)

Cook County has been rated as "high" for tornadoes in the 2010 State Plan.

Since 1950, Illinois has averaged 36 tornadoes per year; however, in some years, this average was greatly exceeded. In 1974, 107 tornadoes were reported, and in 1998, 105 were reported followed by 79 in 1999. The year of 2003 had a record number of tornadoes with 155 tornadoes occurring. There are between 5 and 10 EF3, EF4, and EF5 tornadoes in Cook County per square mile (Figure 2-10)

Contrary to the belief that there are numerous tornadoes in March, during the last fifty years the primary tornado season in Illinois has been within the months April, May and June. Of the 1,892 tornadoes recorded since 1950, 62 percent (950 in number) occurred during the above three months. The months of March, July, August and September account for a total of 19 percent, leaving 19 percent for the period October through February. More than half of all tornadoes occur between the hours of 3:00 PM and 7:00 PM, but they can occur at any time of day or night. There are no official recurrence intervals calculated for tornadoes.

Cook County has had 44 of the 1,472 tornadoes recorded in Illinois between 1950 and 1999. With 44 occurrences over 50 years, the likelihood of a tornado hitting somewhere in the county is 0.88 (88%) in any given year (Calumet City Hazard Mitigation Plan).

Historical events

The table 2 – 5 below lists occurrences within fifteen (15) miles of the Village of Westchester;

(Information found on www.homefacts.com)

Table 2-5

Date	Force	Distance (Miles)	Death (s)	Injured
4/7/1954	3	14	1	13
9/26/1959	1	13	0	14
3/4/1961	2	12	1	115
6/23/1962	2	14	0	10
4/17/1963	4	12	1	50
4/11/1965	4	12	6	75
5/26/1965	2	14	0	11
11/12/1965	3	13	0	14
6/9/1966	2	12	1	30
4/21/1967	4	12	1	100
10/24/1967	3	10	0	0
4/30/1970	2	15	0	9
4/6/1972	2	12	1	22
9/28/1972	4	13	0	20
6/16/1973	0	10	0	0
6/9/1974	1	7	0	0
6/20/1974	3	15	0	5
3/12/1976	2	12	2	66
6/13/1976	4	12	2	23
4/2/1982	3	13	0	15
4/27/1984	3	15	1	5
9/29/1986	1	15	0	10
8/28/1990	5	11	29	350
3/27/1991	3	15	0	7
6/7/2008	2	15	0	6

Future occurrence of a tornado touch down in Westchester is low (homefacts.com). Even if the probability of a tornado touchdown is low, the consequences can be very high.

EARTHQUAKES

An earthquake is the sudden, rapid shaking of the earth, caused by the breaking and shifting of subterranean rock as it releases strain that has accumulated over a long time.

For hundreds of millions of years, the forces of plate tectonics have shaped the earth, as huge plates that form the earth's surface slowly move over, under and past each other. Sometimes, the movement is gradual. At other times, the plates are locked together, unable to release accumulated energy. When the accumulated energy grows strong enough, the plates break free and so an earthquake is experienced.

An earthquake is commonly known by its measurement on the Richter Scale. Each movement up the scale is exponentially higher than the previous rating. For example an earthquake with a 7.0 on the Richter Scale is ten times as worse as an earthquake with a 6.0 on the Richter Scale. The USGS (United States Geological Society) rates earthquakes with a 6.0 or greater as considerably dangerous ones. The Village of Westchester has experienced some earthquakes over the last fifty years (see table 2 -6). Most of the earthquakes are under 5.0 and very minimal (if any) damage has occurred. There were no fatalities experienced.

History of Earthquakes in Illinois Table 2-6

Date	Area	Magnitude	Scale	Damage	Fatalities
09/14/65	Town of Tamms, felt 10 miles away	5.0	Richter	Minor - Cracks in chimneys and pilaster	None
11/09/68	Cottage Grove Fault in Southern Illinois Basin. Felt in 23 states and over 580,000 square miles.	5.3	Richter	Moderate - Windows broken, Chimneys toppled, foundations cracked, walls cracked.	None
09/15/72	Amboy Illinois. Felt in seven surrounding states.	4.0	Richter	Minor - Cracks in chimneys and pilaster	None
04/03/74	Wabash County. Felt in nine states.	4.3	Richter	Minor - Cracks in chimneys and pilaster	None
06/29/84	Saline County in Southern Illinois	4.1	Richter	Minor - Cracks in chimneys and pilaster	None
01/31/12	McHenry county	2.4	Richter	Little or None	None

Data furnished by USGS

An earthquake of intensity VII occurred on **November 9, 1968**. A magnitude 5.3 shock, it was felt over 580,000 square miles in 23 states. There were reports of people in tall buildings in Ontario and Boston feeling the shock.

Damage consisted of bricks being knocked from chimneys, broken windows, toppled television antennae, and cracked plaster. There were scattered reports of cracked foundations, fallen parapets, and over-turned tombstones. Chimney damage was limited to buildings 30 to 50 years old. Many people were frightened. Church bells rang and the characteristic "X" cracks were observed at Broughton and several other towns. Loud rumbling earthquake noise was reported from many communities. The quake was felt in Chicago.

Future possibility of a 5.0 or greater magnitude earthquake for Westchester is low. (USGS)

Drought

Cook County is ranked as "guarded" for drought in the 2010 State Plan. However, the source of the Village's drinking water is Lake Michigan. Many unincorporated water customers obtain water via the City of Chicago. The Village does not consume all of the water it receives and sells the remainder to other communities. Severe droughts impact agricultural areas most significantly. There are no agricultural areas in the Village.

As the Village has an ample supply of Lake Michigan water, drought, although ranked as "guarded" for the County (as well as most of the State), is not considered a hazard to the Village.

Current condition (12/31/11) in the Village of Westchester is Moderate (US Drought Map).

Future drought conditions: Moderate, most likely the highest. (US Drought Map)

Mitigation Goals

a. Goal: Improve Capacity of village drainage system

Action items:

1. *Expand Mayfair Reservoir:* The village Building Department along with the village Project Engineer would be the responsible parties for this project. This will be an ongoing project with a projected cost of staff time, outside engineering firm and project specific costs such as equipment operation/maintenance.
2. *Rain Barrel Program:* The village office staff and Metropolitan Water and Reclamation District (MWRD) are the parties responsible for this project. This will be an ongoing project with a projected cost of staff time.
3. *Continue Street Sweeping:* The village Public Works Department is the agency responsible for this project. This will be an ongoing project with a projected cost of staff time and specific costs such as equipment operation/maintenance.
4. *Continue Leaf Bag Program:* The Village Board is the responsible agency for this. This will be an ongoing project and is a volunteer program with the only costs would be the village vehicles used for delivery. The funds for the bags are donated.
5. *Maintain an active role in Addison Creek Restoration:* The Village President is the responsible party for this project. Currently no costs are projected for this project.

Hazards addressed: Flooding, Storms, Winter Storms

b. Goal: Implement, Maintain and Update programs for drainage systems

Action Items:

1. *Review Sanitation/Storm lines where streets are being repaired:* The village Public Works Department is the agency responsible for this project. This is an ongoing project with costs projected of staff time and projected cost of equipment operation/maintenance.
2. *Scope sanitation/storm lines:* The village Public Works Departments as the responsible agency for this project. This is an ongoing project with projected costs of staff time, equipment operation/maintenance and outside contractor.
3. *Preventive Maintenance (PM) program for sewer/storm lines:* The village Public Works Department is the responsible agency for this project. This is an ongoing project with projected costs of staff time and equipment operation/maintenance.
4. *Funding the Overhead Sewer Program:* The Village Manager and Village Finance Director are the parties responsible for this project. This is an ongoing project with projected costs of front office staff.
5. *Continuing investing in storm/sanitation line infrastructure:* The Village Board is the responsible agency for this project. This is an ongoing project with projected cost of staff time, outside engineering firms and outside contractors.

Hazards Addressed: Flooding, Storms, Winter Storms

c. Goal: Develop education and outreach programs to reach all citizens regarding potential mitigation hazards.

Action Items:

1. *Public Outreach (Flood Mitigation Education):*

    a) The village Mitigation Officer is the responsible party for this project. This is an ongoing project and projected costs are front office staff time and publishing materials.

    b) Even though tornadoes are identified as a low risk, they are still identified as a hazard relevant to the community. In these types of events, the Village must address the safety of vulnerable populations. Vulnerable populations include school children, the elderly, disabled persons and hospitalized populations. The Village should work with the school districts, churches and library to determine whether these critical facilities are safe in the event of a tornado. Do these buildings have basements? Do the schools and library have evacuation plans? Do any of these institutions have "safe rooms"? The village Mitigation Officer is the responsible party for this project. Projected costs are front office staff time

Hazards Addressed: All

d. Goal: Continual implementation of NFIP requirements

Action Items:

1. *Implement Homeowners insurance Program:* The Village Manager is the party responsible for this project. This is an ongoing project with minimal front office staff time as projected costs.
2. *Construction/Renovation in the Flood Plain:* The village Building Department is the agency responsible for this project. This is an ongoing project with no additional costs needed.
3. *Community Rating Participation:* The village Mitigation Officer is the party responsible for this project. This is an ongoing project with projected costs of minimal front office staff time.

Hazards Addressed: All

e. Goal: Protect properties and critical facilities and infrastructure from damage from natural hazards.

Action Items:

1. *Mitigation projects mentioned in plan:* The Village Board and Building Department are the agencies responsible for this project. This is an ongoing project which will require working with other municipal governments and community leaders, with no additional projected costs. This should include working with Commonwealth Edison in developing a plan and schedule for tree trimming and for the maintenance of the electrical distribution infrastructure within the Village.

Hazards Addressed: All

f. Goal: Create training and awareness programs for non-flooding hazards.

Action Items: Monitoring water bans, severe storms and tornado awareness, earthquake awareness.

Need to coordinate with fire department and other governmental entities.

Hazards Addressed: Earthquake, Severe Storms, Tornadoes, and Drought.

g. Goal: Create a center where residents can go in case of extreme heat or cold and not worry about power outages.

Action Items: Fund a project for generators in the warming/cooling center.
Hazards Addressed: Extreme heat and extreme cold.

h. Goal: Incorporate Village of Westchester Multi-Hazard Mitigation Plan into other municipal plans.

Action Items: Storm water mitigation plan, Capital Improvement Plan, land use plans, zoning ordinances, building codes and emergency operation plans. Village Board is the agency responsible for this project. This is an ongoing project with projected costs of staff time, engineering firms and outside contractors.
Hazards Addressed: All

Prioritizing Mitigation Goals

Goal	Social	Technical	Admin	Political	Legal	Economic	Environment
Capacity of drainage system	High	High	Med	Med	High	Med	High
Maintenance of drain system	High	High	High	Med	High	High	High
Develop outreach program	High	High	High	Med	High	High	High
Continue NFIP requirements	High	High	High	Med	High	High	High
Protect Properties	High	High	Med	Med	High	High	High
Create training and awareness programs	High	High	Med	Med	High	High	High
Create a non-disruptive center	High	High	High	Med	High	Med	High
Incorporate MH Plan into others	High	High	High	Med	High	High	High

Social - level of public support for overall implementation strategies and specific mitigation goals.
Technical - level of technical feasibility; reduce losses long term and minimal secondary impacts.
Admin (Administrative) - level to anticipate staffing, funding and maintenance requirements.
Political - level of understanding of feelings of officials of local and state governments about issues related to goals.
Legal - level of legal authority appropriated to where the action cannot be undertaken.
Economic - level of cost effective mitigation actions that can be funded in current or upcoming budget cycle.
Environmental - Level of the public desires for a healthy and sustainable environmental community.

Other Factors for Prioritizing:

When deciding on the priority of the goals, what also came into play were the flood of 2010 and the blizzard of 2011. In most hazards the first thing that is at risk is the resident's property. The flood of 2010 and the blizzard of 2011 had shown us the damage and risk that these hazards bring. These hazards also had shown us where our infrastructure is weak and what is needed to improve this.

Mitigation Programs

In reviewing comments from the people and analyzing past historical events, the Village of Westchester came up with the following proposed mitigation projects. All of these projects met the criteria of increasing the resident's safety and decreasing the amount or potential of damage. A cost/benefit analysis follows the descriptions of the projects. In some projects a more detailed analysis will be completed once opportunities arise (mainly funding) for the implementation of these projects. These are prioritized as projects that need to be completed to move mitigation forward in the Village of Westchester.

The following programs are ones that are in place or awaiting/seeking funding by the Village of Westchester:

a. Expand Mayfair Reservoir
b. Review Sanitation/Storm lines where streets are being replaced
c. Rain Barrel Program
d. Funding the Overhead Sewer Program
e. Scope sanitation/storm lines
f. Preventive Maintenance (PM) program for Sewer/Sanitation lines
g. Continue Street Sweeping and Leaf Bag Program
h. Continue investing in sewer/sanitation line infrastructure
i. Appoint a Mitigation Officer
j. Maintain an active role in the Addison Creek Restoration Commission Act
k. Public Outreach – Flood Mitigation Education
l. Implement Homeowners Insurance Program
m. Constructing/Renovation in the Flood Plain
n. Installation of a backup generator(s) in the Village's Warming/Cooling Center
o. Earthquake awareness program
p. Sever storm and tornado awareness program
q. Monitoring water bans during drought conditions

Expand Mayfair Reservoir:

The Mayfair Reservoir currently services the residents of Windsor Ave. from Wolf Road to Hawthorne Ave and 31st Street from Sunnyside Ave. to Wolf Road. The capacity is currently sixty six (66) million gallons of storm water. The storm water flows from the storm lines to the reservoir and is then pumped out of the reservoir into Mastodon Creek which flows into the Des Plaines River. In the Storm of July 23-24, 2010, the reservoir filled up and overflowed into the creek, which caused the creek to overflow its banks. The overflow traveled into the village following the floodplain as shown in the FIRM map. The water ran through residential homes in 2300 to 2600 blocks of Mayfair Ave. to Sunnyside Ave. and ended in the Cook County Forest Preserve touching Sunnyside Ave. on the east side.

In the storm meeting on July 27, 2010, discussion with the public led to bringing up an idea that was presented years ago from a preliminary quick study by Hancock Engineering. This was an idea to expand the reservoir, which detailed as follows:

1) Increase the reservoir by 25% or 17 million gallons. This would allow more retention and decrease the risk of overflow into the Mastodon Creek which would decrease the risk of Mastodon Creek overflowing its banks.
2) Funding for this project would be sought after Westchester completes it Multi Hazard Mitigation plan. Upon completion of the Multi Hazard Mitigation Plan and approval by IDNR, FEMA and Village Board the following would take place:
    a) An Engineer's estimate would be attained for the expansion project
    b) After attaining an estimate cost, grant monies would be sought after to fund project.
    c) After grant monies were received a bidding process would take place to find vendors to move forward with the project.
    d) Upon award of the bid, construction on the project would begin.

The department responsible for spearheading this project would be the Public Works Director, in our Public Works department. The costs estimates for this project are between $4,000,000 and $6,000,000.

Review Sanitation/Storm lines where streets are being replaced

It is the practice now, currently in place, as to which any street has a two inch grind or greater over the entire length of a street , which the length is determined to be the length of street which is between two other intersecting streets, that length shall be ground down and then sanitation/storm lines are to be inspected. After inspection and necessary repairs are completed, then the street can be laid. Inspection is to be determined as the process Public Works deems necessary due to the nature of the job.

The purpose is to inspect the lines when the street is taken up and to check for issues with the lines and correct them then, instead of waiting to fix them after a new street has been laid. This is more cost efficient and continues the infrastructure upgrading to increase the flow of water to the designated areas.

Rain Barrel Program

Westchester in working with the Metropolitan Waste and Reclamation District (MWRD) is currently offering rain barrels to residents for a set price. The purpose of the rain barrel is to collect rain water running off from roofs in a storm, store it in the said barrel, and use it for functions (non drinking and non bathing) that tap water may regularly be used for.

Functions such as watering a garden, washing a car, cleaning a patio, etc. can all be accomplished with water stored in a rain barrel. In a storm the rain can be caught in a barrel instead of running into the ground, which will reduce the chance of flooding a home.

The process for ordering the barrels is to fill out a form either in person at the Village Hall or on the Village of Westchester Website (site) and must be paid for upfront. The Village will order the barrels from MWRD (while supplies last) and have the barrels delivered to the Village. Upon receipt of the barrels the Village will deliver them to the residents.

Funding the Overhead Sewer Program

For residents who have conventional sewer systems, that are system where the sanitation sewers run underneath the house or are considered gravity fed, the Village of Westchester reviewed a program that will allow some financial assistance to residents to convert from a conventional system to an overhead system. **This program is currently not funded.**

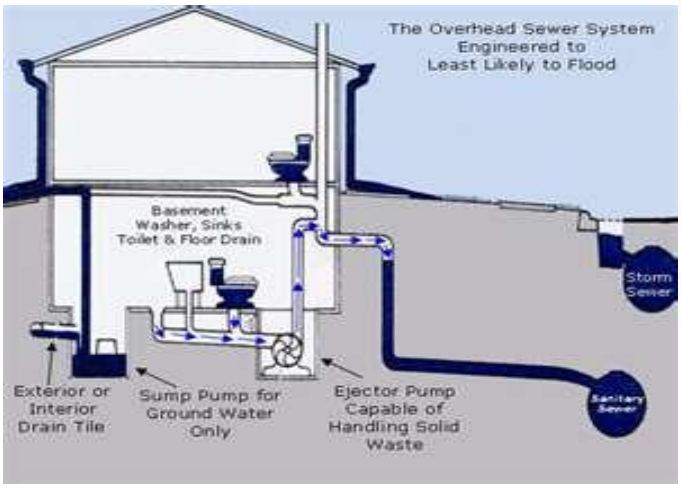
The idea of an overhead sewer is now mandatory in new construction as by Village Code. There are two kinds of overhead sewer systems that can be installed. Either one or the other or both can be installed. The first one is an ejector pit system which is explained as follows:

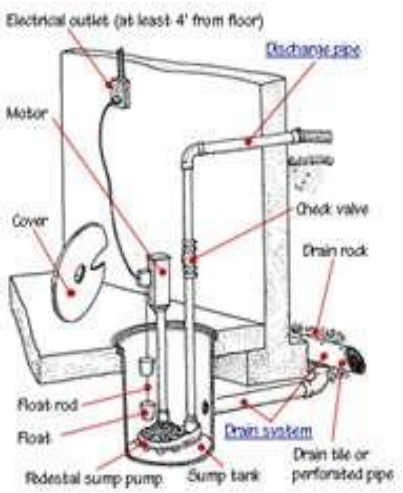
- In a usable area below ground level (basement for example) all floor drains, utility sinks, approved bathrooms are connected to an ejector pit, which will pump the water and/or debris up over the ground level into the sanitation sewer system. The ejector pit has a back flow valve from water going back into the pit. The system is designed to eject the debris from the pit to around two feet above the ground level back into the sewer line. **This is not to be connected to the storm sewer line.**

The second is a sump pump system:

- This system is used for directing seepage which would normally flow through cracks in the foundation, or build up pressure under the foundation floor, to a pit where a pump will eject it out over ground level into the storm sewer line. A pit is dug all around the foundation floor, breaking through the floor, which then specially constructed and treated PVC pipe is laid down. This pace has holes all around it. The pipe is connected to a pit with a sump pump in it. The concept is ground water seeps through the pace pipe into the pit and is pumped out.

It is Westchester's plan to seek out funding for this program, which has to come from additional sources outside the normal revenue streams.





Scope sanitation/storm lines

In 2009 the Village of Westchester engaged National Power Rodding in a project to scope out all of the sanitation sewer lines in the village. This consisted of running a camera through all the lines gathering digital images of the condition of lines, where breaks are, and where tree root blockage exists. As tree root blockage was encountered it was cleared out. This program was completed in November'2009. Ninety seven miles of sanitation was scoped at a cost of about $745,000. The village was divided into regions and the scoping was completed by each region. The only area that was not scoped was that lineage running through the Cook County Forest Preserve from Wakefield Avenue moving south to 31st street which is Cook County property.

It is the plan of the Village of Westchester to do the following:

1) Scope the storm sewer line in the same fashion
2) Continue an annual scoping program so the entire Village is scoped every ten years as part of a preventative maintenance program (PM).

From this information condition of sewer lines are documented and a priority has been set to what areas need first treatment.

Preventive Maintenance (PM) program for Sewer/Sanitation lines

The Village of Westchester has outlined and started a preventative maintenance program for out sewer and sanitation lines. This started in 2009 with the scoping of the lines (see Scope Sewer/Sanitation line section for details). As a result certain areas or "hot spots" have been identified as a priority need. In 2010 Westchester bonded out $1,345,000 using revenue streams in their Utility Fund to fund such repairs. In 2011 Westchester received a low interested IEPA loan to continue these repairs in the Highridge area.

The preventive maintenance plan consists of:

1) Reviewing regions for "hot spots" in dire need of repair through our Public Works inspection process and also utilizing outside resources.
2) Identifying what "hot spots" can be repaired in house or which need to be farmed out to third party contractors.
3) Scheduling a two year plan to identify what "hot spots" can be taken care of.
4) Identify funding for these areas.
5) Implement plan.
6) Keeping waterways and flow ways clean of debris.

As mentioned in the section "**Review Sanitation/Storm lines where streets are being replaced"** as streets are being completed, sewer/storm lines will be inspected by Public Works with the means they deem necessary to each situation. This is a cost savings method as new streets do not need to be torn up again to repair/replace sewer/storm lines.

Continue Street Sweeping and Leaf Bag Program

During the late spring to middle fall Westchester runs a street sweeper during certain times, as published in the newsletter and the Village of Westchester website. This program is primarily done to keep leaves and other debris out of the street gutters. This debris, if left unattended, will clog up storm drains and cause street flooding which could back up into the resident's homes.

The Leaf Bag program is an initiative started in 2009 to promote residents to bag leaves instead of sweeping them into the street gutter. As mentioned earlier this can clog storm drains during heavy rains and cause back up flooding. One packet (5 bags) is distributed to each household at no charge to the residents. This is initiated during middle to late October.

Continue investing in sewer/sanitation line infrastructure

It is the Village of Westchester's commitment to its residents to continually invest in infrastructure improvements in its sewer/sanitation lines whenever possible by using the following methods:

1) Inspections during street improvements
2) Preventive maintenance program
3) Emergency repairs

And to utilize the following areas of revenue;

1) Current funds from the Utility Fund within the scope of current expenses and reserve policy
2) Bonding from additional revenue streams in the Utility Fund
3) Seeking Federal, State and County grants.

Appoint a Mitigation Officer

It is the Village of Westchester's commitment to have a mitigation officer appointed to make sure the following is done:

1) Maintain steps necessary to hold and improve the villages CRS ranking
2) Educate the residents on proper flood mitigation topics
3) Seek out programs that will enhance flood mitigation processes for the village and residents alike.
4) Work with Federal, State, County and local municipalities on flood mitigation issues.
5) Seek out additional funding for mitigation programs.

Maintain an active role in the Addison Creek Restoration Commission Act

The Addison Creek Restoration project is actually a unit of local government that various members of City and Villages belong to. The purpose of this unit of government is to relocate a retention pond in the Village of Broadview. This retention pond will have water flows form the member local governments. The Addison Creek Restoration is in its beginning phases. The following additional information is provided.

Brief summary:

Sec. 10. Creation; duration. There is created a body politic and corporate, a unit of local government, named the Addison Creek Restoration Commission. The territory of the Commission boundaries consists of the corporate borders of the Village of Bellwood, the City of Northlake, the Village of Melrose Park, the Village of Stone Park, the Village of Broadview, the Village of Westchester, and the Village of North Riverside. The Commission shall continue in existence until the accomplishment of its objective, the relocation of Addison Creek retention pond within the Village of Bellwood, the restoration of creek beds, and enhanced fencing for security and safety around areas of Addison Creek, or until the Commission officially resolves that it is impossible or economically unfeasible to fulfill the objectives.

Actual Act:

20 ILCS 3901/ Addison Creek Restoration Commission Act.

(20 ILCS 3901/1)
(Section scheduled to be repealed on January 1, 2015)
Sec. 1. Short title. This Act may be cited as the Addison Creek Restoration Commission Act. (Source: P.A. 93-948, eff. 8-19-04.)

(20 ILCS 3901/5)
(Section scheduled to be repealed on January 1, 2015)
Sec. 5. Legislative declaration. The General Assembly declares that the welfare, health, prosperity, and moral and general wellbeing of the people of the State are, in large measure, dependent upon the sound and orderly development of municipal areas. The Village of Bellwood, the City of Northlake, the Village of Melrose Park, the Village of Stone Park, the Village of Broadview, the Village of Westchester, and the Village of North Riverside are, by reason of the location of Addison Creek, adversely affected by a floodplain designated by the Federal Emergency Management Agency (FEMA). Certain development opportunities may exist in the project area that would stabilize and enhance the tax base of existing communities, maintain and revitalize existing commerce and industry, and promote comprehensive planning within and between communities. The relocation of the retention pond, restoration of creek banks, and enhanced fencing for security and safety around areas of Addison Creek is important for the orderly expansion of industry and commerce and for progress of the region. The ultimate goal is to get FEMA to reconsider the size of the floodplain. Once this is accomplished, it will

greatly reduce the cost of insurance to homeowners and increase the value of property within the current designated floodplain.
(Source: P.A. 93-948, eff. 8-19-04.)

(20 ILCS 3901/10)
(Section scheduled to be repealed on January 1, 2015)
Sec. 10. Creation; duration. There is created a body politic and corporate, a unit of local government, named the Addison Creek Restoration Commission. The territory of the Commission boundaries consists of the corporate borders of the Village of Bellwood, the City of Northlake, the Village of Melrose Park, the Village of Stone Park, the Village of Broadview, the Village of Westchester, and the Village of North Riverside. The Commission shall continue in existence until the accomplishment of its objective, the relocation of Addison Creek retention pond within the Village of Bellwood, the restoration of creek beds, and enhanced fencing for security and safety around areas of Addison Creek, or until the Commission officially resolves that it is impossible or economically unfeasible to fulfill the objectives.
(Source: P.A. 93-948, eff. 8-19-04.)

(20 ILCS 3901/15)
(Section scheduled to be repealed on January 1, 2015)
Sec. 15. Acceptance of grants, loans, advances, and appropriations. The Commission may apply for and accept grants, loans, advances, and appropriations from the federal government and from the State of Illinois or any agency or instrumentality thereof to be used for the purposes of the Commission and may enter into any agreement in relation to these grants, loans, advances, and appropriations. The Commission may also accept from the State, any State agency, department, or commission, any unit of local government, any railroad, school authority, or jointly therefrom, grants of funds or services for any of the purposes of this Act.
(Source: P.A. 93-948, eff. 8-19-04; 94-682, eff. 11-3-05.)

(20 ILCS 3901/17)
(Section scheduled to be repealed on January 1, 2015)
Sec. 17. Borrowing money and issuance of bonds.
(a) The Commission may incur debt and borrow money from time to time and, in evidence thereof, may issue and sell bonds in an amount sufficient to provide funds for carrying out the purposes of

this Act, to pay all costs and expenses incident to issuing the bonds, and to refund and refinance, from time to time, bonds so issued and sold.

(b) Before issuing any bonds under this Section, the Commission shall adopt a resolution calling for the submission of the question of issuing the bonds and imposing a tax sufficient for payment of the interest on the bonds as it falls due and to pay the bonds as they mature to the voters of that part of the territory of the Commission that is within the Addison Creek floodplain in accordance with the general election law. The question must be in substantially the following form:

Shall the Commission issue bonds in an amount not to exceed (insert amount) and levy a tax at a rate not to exceed (insert rate) of the equalized assessed value of all taxable property located within that part of the territory of the Commission that is within the Addison Creek floodplain for the payment of the interest on the bonds as it falls due and to pay the bonds as they mature?

The ballot must have printed on it, but not as part of the proposition submitted, the following: "The approximate impact of the proposed tax rate on the owner of a single family home having a market value of (insert value) would be (insert amount) in the first year of the tax if the tax is fully implemented." No other information needs to be included on the ballot.

The votes must be recorded as "Yes" or "No".

If a majority of the electors voting on the question vote in the affirmative, the Commission may thereafter issue the bonds and levy the tax.

(c) The total amount levied and extended under this Section and Section 20, in the aggregate, in any single taxable year, shall not exceed $10,000,000.

(Source: P.A. 94-682, eff. 11-3-05.)

(20 ILCS 3901/20)

(Section scheduled to be repealed on January 1, 2015)

Sec. 20. Taxing powers.

(a) After the first Monday in October and by the first Monday in December in each year, the Commission shall levy the general taxes for the Commission by general categories for the next fiscal year. A certified copy of the levy ordinance shall be filed with the county clerk of each county in which the that part of the territory of the Commission that is within the Addison Creek floodplain is located by the last Tuesday in December each year.

(b) The amount of taxes levied for general

corporate purposes for a fiscal year may not exceed the rate of .01% of the value, as equalized or assessed by the Department of Revenue, of the taxable property located within that part of the territory of the Commission that is within the Addison Creek floodplain, provided that the total amount levied and extended under this Section and Section 17, in the aggregate, in any single taxable year, shall not exceed $10,000,000.

(c) This tax and tax rate are exclusive of the taxes required for the payment of the principal of and interest on bonds.

(d) The rate of the tax levied for general corporate purposes of the Commission may be initially imposed or thereafter increased, up to the maximum rate identified in subsection (b), by the Commission by a resolution calling for the submission of the question of imposing or increasing the rate to the voters of that part of the territory of the Commission that is within the Addison Creek floodplain in accordance with the general election law. The question must be in substantially the following form:

Shall the Commission be authorized to establish its general corporate tax rate at (insert rate) on the equalized assessed value on all taxable property located within that part of the territory of the Commission that is within the Addison Creek floodplain for its general purposes?

The ballot must have printed on it, but not as part of the proposition submitted, the following: "The approximate impact of the proposed (tax rate or increase) on the owner of a single family home having a market value of (insert value) would be (insert amount) in the first year of the (tax rate or increase) if the (tax rate or increase) is fully implemented."

The ballot may have printed on it, but not as part of the proposition, one or both of the following: "The last tax rate extended for the purposes of the Commission was (insert rate). The last rate increase approved for the purposes of the Commission was in (insert year)." No other information needs to be included on the ballot.

The votes must be recorded as "Yes" or "No".

If a majority of the electors voting on the question vote in the affirmative, the Commission may thereafter levy the tax.

(Source: P.A. 93-948, eff. 8-19-04; 94-682, eff. 11-3-05.)

(20 ILCS 3901/25)

(Section scheduled to be repealed on January 1, 2015)

Sec. 25. Board; composition; qualification; compensation and expenses. The Commission shall be governed by a board consisting of 7 members. The members of the Commission shall serve without compensation, but may be reimbursed from the affected municipalities for actual expenses incurred by them in the performance of duties prescribed by the Commission.
(Source: P.A. 93-948, eff. 8-19-04.)

(20 ILCS 3901/30)

(Section scheduled to be repealed on January 1, 2015)

Sec. 30. Appointments; tenure; oaths; vacancies. One member shall be appointed by the village president of the Village of Bellwood, one member shall be appointed by the village president of the Village of Westchester, one member shall be appointed by the mayor of the City of Northlake, one member shall be appointed by the village president of the Village of Melrose Park, one member shall be appointed by the village president of the Village of Broadview, one member shall be appointed by the village president of the Village of Stone Park, and one member shall be appointed by the village president of the Village of North Riverside. The office of the chair shall rotate annually. Each representative member of the Commission shall take and subscribe to the constitutional oath of office and file it with the Secretary of State. If a vacancy occurs by death, resignation, or otherwise, the vacancy shall be filled by the appropriate selecting party. Each member of the Commission shall hold office for a term of 3 years from the third Monday in January of the year in which his predecessor's term expires. Each member may continue to serve an additional 3-year term unless that member is replaced by appointment within 60 days after the end of his or her term. Of the members initially appointed under this Section, 2 members shall be appointed for terms of office that expire on the third Monday of January, 2006, 2 members shall be appointed for terms of office that expire on the third Monday of January, 2007, 2 members shall be appointed for a term of office that expire on the third Monday of January, 2008, and one member shall be appointed for a term of office that expires on the third Monday of January, 2009. Each respective successor shall be appointed for a term of 3 years from the third Monday of January of the year in which his or her predecessor's term expires.
(Source: P.A. 93-948, eff. 8-19-04.)

(20 ILCS 3901/35)
(Section scheduled to be repealed on January 1, 2015)
Sec. 35. Removal of members. Any member of the Commission may be immediately removed from office by the appropriate selecting party or by a majority vote of the Commission in case of incompetency, neglect of duty, or malfeasance of office or otherwise upon 15 days written notice to the other members. Absence from any 3 consecutive regular meetings of the Commission is deemed to be neglect of duty.
(Source: P.A. 93-948, eff. 8-19-04.)

(20 ILCS 3901/40)
(Section scheduled to be repealed on January 1, 2015)
Sec. 40. Organization; chair and temporary secretary. As soon as possible after the appointment of the initial members, the Commission shall organize for the transaction of business, select a chair and a temporary secretary from its own number, and adopt bylaws to govern its proceedings. The initial chair and successors shall be elected by the Commission from time to time from among members. The Commission may act through its members by entering into an agreement that a member act on the Commission's behalf, in which instance the act or performance directed shall be deemed to be exclusively of, for, and by the Commission and not the individual act of the member or its represented person.
(Source: P.A. 93-948, eff. 8-19-04.)

(20 ILCS 3901/45)
(Section scheduled to be repealed on January 1, 2015)
Sec. 45. Meetings; quorum; resolutions. Regular meetings of the Commission shall be held at least quarterly, the time and place of those meetings to be fixed by the Commission. Special meetings may be called by the chair or by any 4 members of the Commission by giving notice in writing, stating the time, place, and purpose of the special meeting. The notice shall be served by certified letter deposited in the U.S. mail at least 48 hours before the meeting. If there is no vacancy on the Commission, 5 members of the Commission shall constitute a quorum to transact business; otherwise, a majority of the Commission shall constitute a quorum to transact business, and no vacancy shall impair the right of the remaining commissioners to exercise all of the powers of the Commission. Every finding, order, or decision approved by a majority of the members

of the Commission shall be deemed to be the finding, order, or decision of the Commission. All action of the Commission shall be by resolution and, except as otherwise provided in this Act, the affirmative vote of at least a majority of the total available votes is necessary for the adoption of any resolution. The weight of each member's vote shall be based on the assessed value of the property in the municipality from which the member was recommended in the flood plain designated by FEMA. The chair may vote on any and all matters coming before the Commission.
(Source: P.A. 93-948, eff. 8-19-04.)

(20 ILCS 3901/50)
(Section scheduled to be repealed on January 1, 2015)
Sec. 50. Secretary and treasurer; oaths; bond of treasurer. The Commission may appoint a secretary and a treasurer, who need not be members of the Commission, to hold office at the pleasure of the Commission and may fix their duties and compensation, which shall be paid by the affected municipalities. Before entering upon the duties of their respective offices, the secretary and treasurer must take and subscribe to the constitutional oath of office, and the treasurer must execute a bond with corporate sureties to be approved by the Commission. The bond shall be payable to the Commission in whatever penal sum may be directed by the Commission conditioned upon the faithful performance of the duties of the office and the payment of all money received by the treasurer according to law and the orders of the Commission. The Commission may, at any time, require a new bond for the treasurer in any penal sum determined by the Commission.
(Source: P.A. 93-948, eff. 8-19-04.)

(20 ILCS 3901/55)
(Section scheduled to be repealed on January 1, 2015)
Sec. 55. Deposit and withdrawal of funds; signatures. All funds deposited by the treasurer in any bank or savings and loan association shall be placed in the name of the Commission and may be withdrawn or paid out only by check or draft upon the bank or savings and loan association that is signed by the treasurer and countersigned by the chair of the Commission. Subject to prior approval of the designations by a majority of the Commission, the chair may designate any other member or any officer of the Commission to affix the signature of the treasurer to any Commission check or draft for payment of salaries or wages

and for payment of any other obligation of not more than $2,500. No bank or savings and loan association may receive public funds as permitted by this Section unless it has complied with the requirements established under Section 6 of the Public Funds Investment Act.
(Source: P.A. 93-948, eff. 8-19-04.)

(20 ILCS 3901/60)
(Section scheduled to be repealed on January 1, 2015)
Sec. 60. Delivery of check after executing officer ceases to hold office. If any officer whose signature appears upon any check or draft issued under this Act ceases to hold office before the delivery of the check or draft to the payee, the officer's signature nevertheless shall be valid and sufficient for all purposes with the same effect as if the officer had remained in office until delivery of the check or draft.
(Source: P.A. 93-948, eff. 8-19-04.)

(20 ILCS 3901/65)
(Section scheduled to be repealed on January 1, 2015)
Sec. 65. Rules. The Commission may adopt any rules that are proper or necessary and to carry into effect the powers granted to it.
(Source: P.A. 93-948, eff. 8-19-04.)

(20 ILCS 3901/70)
(Section scheduled to be repealed on January 1, 2015)
Sec. 70. Fiscal year. The Commission shall designate its fiscal year.
(Source: P.A. 93-948, eff. 8-19-04.)

(20 ILCS 3901/75)
(Section scheduled to be repealed on January 1, 2015)
Sec. 75. Reports and financial statements. Within 60 days after the end of its fiscal year, the Commission must cause to be prepared by a certified public accountant a complete and detailed report and financial statement of the operations and assets and liabilities as it relates to the Addison Creek Restoration project. A reasonably sufficient number of copies of the report shall be prepared for distribution to persons interested, upon request, and a copy of the report shall be filed with the Department of Natural Resources and with the county clerk of Cook County.
(Source: P.A. 93-948, eff. 8-19-04.)

(20 ILCS 3901/80)
(Section scheduled to be repealed on January

1, 2015)
    Sec. 80. Construction. Nothing in this Act shall be construed to confer upon the Commission the right, power, or duty to order or enforce the abandonment of any present property or the use in substitution.
(Source: P.A. 93-948, eff. 8-19-04.)

    (20 ILCS 3901/85)
    (Section scheduled to be repealed on January 1, 2015)
    Sec. 85. Severability. The provisions of this Act are severable under Section 1.31 of the Statute on Statutes.
(Source: P.A. 93-948, eff. 8-19-04.)

    (20 ILCS 3901/90)
    (Section scheduled to be repealed on January 1, 2015)
    Sec. 90. Repeal. This Act is repealed on January 1, 2015.
(Source: P.A. 96-244, eff. 8-11-09.)

    (20 ILCS 3901/999)
    (Section scheduled to be repealed on January 1, 2015)
    Sec. 999. Effective date. This Act takes effect upon becoming law.
(Source: P.A. 93-948, eff. 8-19-04.)

Public Outreach – Flood Mitigation Education

The Village of Westchester commits to the following educational programs to inform residents of flood mitigation:

1) In January of every year publish an updated FIRM (Flood Insurance Rate Map) with explanations of what the FIRM is and any revisions.
2) Have a mitigation section of the newsletter to explain current information on flood mitigation for residents.
3) In May and June (beginning of storm season) publish the following:
   a) What to do during a flood
   b) What to do after the flood
   c) Communication outlets from the Village
   d) Communication outlets to the village
   e) Opportunities to minimize flood damage in a residents home
4) Hold minimum of two town hall meetings a year May and September regarding mitigation issues and practices.
5) In 2012 put together mitigation workshops with a schedule of starting in fall 2012 for residents to sign up for and learn ways to minimize flood damage.
6) Website:
   a) Publish and archive information mentioned above
   b) Publish frequently asked questions
   c) Publish emergency plans separately and easy to locate
   d) List all governmental agencies to seek help in answering questions about floods, or where to seek help in case of a flood.
   e) Interactive site with workshops on line.
   f) FIRM, Westchester and other related maps.
   g) Westchester Mitigation Manual
   h) Westchester Multi-Hazard Mitigation Plan
   i) Always keep information up to date and new information available

Implement Homeowners Insurance Program

Endorsed by the National League of Cities the NLC Service Line Warranty Program administered by Utility Service Partners (USP) homeowners insurance program is a program that will allow a set dollar amount per year of repair expenses (currently $4,000), to a homeowner for repairs of their service line for the sewer. The service line is defined as the underground sewer line from the owner's home to the village's main. The insurance consists of the following:

1) Low monthly payments (currently $4.50 - $5.50 per month)
2) Maximum expense allowed in one year (currently $4,000)
3) Using local contractors first
4) No minimum or maximum users

This program is initiated through the village for the residents to opt in to.

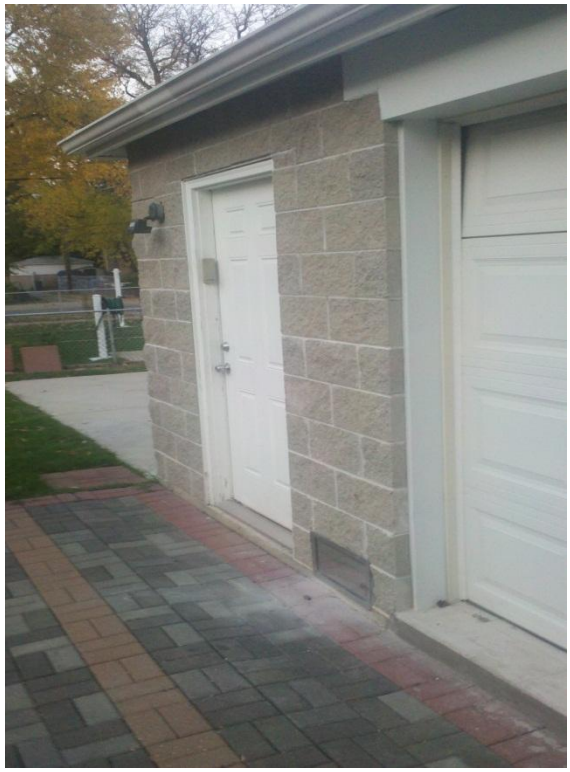
2013 Update: The program has been in place since 1/1/2013, and has over 50% enrollment by residents.

Constructing/Renovation in the Flood Plain

Through the newsletter, website and town hall meetings the following information will be or has been disseminated to the residents:

1) What is the Flood Plain?
2) What to do when new construction or renovating in a Flood Plain
3) Pre-checklist for the new construction or renovation project in the Flood Plain
4) Why is it important to follow these guidelines
5) Explanation of the Village of Westchester ordinance involved in new construction or renovation in the Flood Plain.

All projects will be checked by the building department to verify if the projects are in the Flood Plain. A checklist will be handed to the resident which would have the necessary requirements for being in the Flood Plain as determined by the scope of the project.



Installation of a Back Up Generator(s) System in the Village's Warming/Cooling Center

Currently, the Village of Westchester's Heating and Cooling Center is located at the Westchester Village Hall at 10300 Roosevelt Road, Westchester. In case of severe heat (defined as three consecutive days of 90+ weather) or extreme cold (defined as three days of 10 degrees or lower) the center is open to the public. There is no back up electricity for this center at this time. The plan is to purchase two backup generators to exclusively power the center location and thus remove the risk of power outages that can be caused by this inclement weather. The generators can either be diesel or natural gas and can be safely installed on village property with no risk of disrupting village operations. Preliminary studies have shown that such a system can be accomplished, but due to lack of funding no action has yet been taken. A complete engineering study must be completed to proceed with this project.

Earthquake Awareness Program

Create an awareness program containing the following information:

- Description of an earthquake
- Earthquake History
- Probability of an earthquake
- What to do if an earthquake happens

Sources of this information will come from:

- FEMA
- IEMA
- Westchester Multi-Hazard Mitigation Plan
- Insurance companies
- Other sources as they come available

The information will be distributed by means of the Village and will use the following outlets:

- Village of Westchester Newsletter
- The Westchester Public Library
- The Westchester Park District
- Westchester School district 92.5 (Grades K – 8)
- Divine Infant School
- Divine Providence School
- St. Joseph High School
- DP over 50 Club
- Aging Well Organization

A seminar to present this information will be put together by the village and will be distributed to all the organizations above via a training program, and will also be available through the village. The purpose of this is to make residents aware of the threat of an earthquake an how to react during and after the event. The training seminar will be available in paper and electronic formats. This will be an ongoing program to be updated as new information becomes available.

Severe Storm and Tornado Awareness Program

This is a training program to heighten the awareness of Severe Storms and Tornadoes. This concept brought out would entail:

- What is a Severe Storm and a Tornado
- How are the measured
- What are the components of these occurrences
- What is the historical data concerning these occurrences
- What to do in preparation of, during and after these occurrences

This would be a program funded by the Village of Westchester but administered by the Westchester Fire Department. It will be shown in all governmental bodies, private schools, private organizations and town hall meetings. The components of this course will be taken primarily from:

- National Weather Severe Weather Spotting Course – this is a program that is for the novice and introduces residents to what severe storms and tornadoes are and the various components of these storms. It is a good beginner program for understanding these storms.
- FEMA Literature – This literature is a good compliment of the above program and can be incorporated in the training program.

IEMA and IDNR representation – members from these organizations would be invited to talk about the severe storms and tornadoes and give information on the magnitude of these storms and affects it has on residential and commercial structures and population

Monitoring Water Bans During Drought Conditions

The Village of Westchester currently has a watering band during the summer months that restricts residents, residential and commercial, from outside water usage (watering flowers, filling swimming pools, washing cars, etc.) during odd and even days and specific time range. So if the resident has an even numbered house, that resident can water on even days usually before ten in the morning and after six at night. As the drought condition worsens the restrictions become tighter. The problem is there is not enough staff on hand to monitor and enforce the ban. There are two proposals at hand:

1) Hire part time CSO (Community Service Officers) to patrol during the time of water bans. The position would be part time and can have flexible hours to meet the requirements of the ban. The issue to date is that funding is not available to staff this program. Currently there are not funds available in the budget to hire the part time CSO's
2) Installation of RFID (radio frequency identification devices) in the water meters. Installation of RFID's in the meter would allow part time CSO's to monitor usage peaks at individual sights without physically observing the sights, saving time and gas usage. The observation could be done at the Village Hall Currently to install these devices is cost prohibitive due to lack of funds in the budget.

Public Outreach on Education Program for Water Ban program

Currently the Village of Westchester has a water ban in effect for the hot summer months when a drought condition is very likely to take place. The current ban is for non-essential water usage is to cease from the hours of 10:00 a.m. to 6:00 p.m., and usage outside this time frame can only be done with the system of odd number addresses on odd number days and even number addresses on even number days. Notification using the Village Newsletter and the Village Website is the only media used. Expansion of the communication method of this program is the current plan. The following method(s) are to be used:

- Village Newsletter
- Village Website
- Mailing with the Village water bill
- Separate mailing to send to each residents
- Warnings to be issued by CSO (Community Service Officers) to violators of this ban (usually people with automatic sprinkler systems)
- Review of water ban program in spring time Town Hall meeting

Public Outreach in Education of Earthquake Situation

The current likelihood of severe damage due to an earthquake in the Village of Westchester is considered low; therefore no formal education program is in place for earthquake awareness for the residents of Westchester. The plan would be to increase the awareness of what an earthquake can do, and to inform residents of what to do in case an earth quake of significant magnitude does occur. This will be accomplished by:

- Publication of a series of articles in the Village newsletter
- Same information as stated above on the Village Website
- Identify key governmental structures to:
    a) Identify what would happen if sever damage is done to enable one or more than one of these structures
    b) Each governmental structure would develop a plan of operation in case structure is enabled
    c) Each governmental structure will have a proper plan of safety in case of an earthquake of significant magnitude occurs.
- Work with the Library and Public and private Schools to inform residents of earthquakes and the potential danger that can occur using:
    a) Speakers on the topic
    b) Handout literature on the topic
    c) Make available other literature for review
- Have earthquake awareness as a topic in Town Hall meetings.

This plan can be accomplished with minimal cost.

Mitigation Plan and Hazards Identified

Expand Mayfair Reservoir – This will reduce flooding to homes form Wakefield to 31st Street from the reservoir to Sunnyside Avenue, in case of overflow from Mastodon Creek by the reservoir.

Review Sanitation/Storm lines – This will be a cost effective program for checking storm drains when streets are being completed. This will increase flow restriction in case of storms are sever winter thaws.

Rain Barrel Program – This will help move rain water form residents home to reduce seepage in case of severe storms or severe winter thaws.

Funding Overhead Sewer program – for residents with conventional sewer systems this will reduce or eliminate flooding from water backing up through the floor drain. This usually occurs from severe storms but can also be caused by severe winter storm thaws.

Scope Sanitation/Storm lines – This will be an ongoing project to identify weakness in the lines to prioritize repairs and keep the flow of water moving in case of severe storms and sever winter thaws.

Preventive Maintenance Program – This will keep the costs down on repairs and keep infrastructure working. This benefit is for severe storms, severe winter thaws, tornadoes, drought, extreme heat and cold.

Continue Street Sweeping and Leaf Bag Program – This will limit debris form going into the sewer systems to keep the water flow in case of severe storms or sever winter storm thaws.

Continue investing in sewer/sanitation lines – similar to Preventive Maintenance Program.

Appoint Mitigation Officer – will keep mitigation plan up to date and programs on line. Also it will keep membership in the NFIP current with meeting all requirements as the Village of Westchester is currently a standing member of.

Addison Creek Restoration – Current membership will keep Westchester up to date on potential benefits for severe storms and severe winter thaws.

Installation of backup generator(s) in the Village's Warming/Cooling Center – allows continuous operation in case of a power failure.

Public Outreach – this will keep residents up to date on all hazards with safety and reduction of loss.

Earthquake Awareness Program – informs residents on what an earthquake is, what the likelihood of an earthquake is and what to do in case of an earthquake.

Severe Storm and Tornado awareness Program – informs residents of what these storms are, what to do in case of one and how to prepare for and identify conditions of these storms.

Monitoring Water Bans During drought conditions – how the village can maintain and enforce watering bans during the drought months.

Mitigation Project Cost/Benefit Analysis

Expand Mayfair Reservoir – No cost/benefit has been completed on this project, but will be completed once project is determined to be viable.

Review Sanitation/Storm lines where streets are being replaced – The savings outweighs the cost as the newly laid street would have to be torn up to repair the infrastructure underneath.

Rain Barrel Program – The cost is minimal as the savings to the resident for uses of water from collected rain where the resident would have been billed for. Also the movement of rain water from the foundation will reduce seepage.

Funding the Overhead Sewer Program – The only way this program could be implemented is to use funds specially designated for use in this project. Any other funds would be better put in use for infrastructure repairs. This program if funded would be a definite benefit to the residents.

Scope sanitation/storm lines – The benefit outweighs the cost as specific points of repair can be identified instead of scoping tens of feet of pipe to find the point repair.

Preventive Maintenance (PM) program for Sewer/Sanitation lines – The cost is minimal as the project would use labor already available and the ability to minimize repairs is far better than incurring major repairs.

Continue Street Sweeping and Leaf Bag Program – The cost is minimal as these projects use minimal labor and/or volunteers and utilize equipment already owned by the village. The benefit of keeping debris out of the storm sewers during rains is vital.

Continue investing in sewer/sanitation line infrastructure – Cost/benefit is done on a project by project basis prioritizing each project.

Appoint a Mitigation Officer – There is no cost to implement this project.

Addison Creek Restoration – There is no cost to be a member. When time comes for funding commitment a cost/benefit analysis will be done.

Public Outreach – Minimal cost to educate residents, maximum benefit for residents.

Implement Homeowners Insurance Program – Cost is a nominal monthly amount, and the coverage of a repair (no cost to the resident) is about 400X the cost.

Constructing/Renovation in the Flood Plain – Minimal cost.

Installation of a backup generator(s) in the Village's warming and cooling center – Cost/benefit analysis has not been performed due to the scope of the project at this time. Funding is a key component to start the analysis.

Earthquake awareness program – minimal cost.

Mitigation Project Cost/Benefit Analysis

Severe Storm and Tornado awareness program – minimal cost. Needs to be coordinated with Fire Department and other governmental entities.

Monitoring water bans during drought conditions – moderate cost. Funding needs to be found before a cost/benefit can be done.

Update and Maintenance

It is the commitment by the Village of Westchester to keep all mitigation plans updated with current information and have copies available for review by the residents, at a minimum, in the following locations:

1) Westchester Public Library
2) Westchester Middle School Library

It is the commitment by the Village of Westchester to work with vendors/contractors to obtain the best price for our residents, when applicable, for above mitigation projects.

It is the commitment by the Village of Westchester to work with other local municipalities, local government groups, Cook County, State of Illinois and the Federal Government to keep information current, be involved in programs and seek funding for mitigation projects that benefit the residents of the Village of Westchester.

It is the commitment of the Village of Westchester to help educate the residents of the Village of Westchester on flooding and flood mitigation to help keep property damage low and safety for the residents high.

As stated above it is the commitment of the Village of Westchester to review annually the mitigation plan and mitigation components. The anniversary date of this mitigation plan will be January 1 of each year. The plan will be reviewed for the following items:

- Updates in information about hazards
- Updates in technology regarding hazards
- Update on relevant programs and public outreach
- Updated maps
- Other relevant information

The revised mitigation plan will be brought forward to the Village Board for review and the revised mitigation plan will be voted on for approval within 90 days of anniversary date. The mitigation officer will start the review and such parties designated at that time will be involved. The department primary designated as responsible for review is the Building Department. If no revisions are needed, the plan will still be discussed at a Village Board meeting with no action needed.

Each mitigation project will be reviewed annually, at the time the plan is reviewed, for status of project or any addition of new projects or completion of current project. The following table, 2 - 7, will be used to monitor projects:

Table 2-7

Mitigation Project Review

Year of Review: Through April, 2013

Mitigation Program	Implemented	Year Implemented	Notes
Expand Mayfair Reservoir	No	None	Waiting on funding
Review Sanitation/Storm lines	Yes	2009	Ongoing process
Rain Barrel Program	Yes	2011	In Progress
Funding the Overhead Sewer Program	No	None	Waiting on funding
Scope sanitation/storm lines	Yes	2009	Ongoing process
Preventive Maintenance (PM) program	No	2012	Spring 2012
Street Sweeping and Leaf Bag Program	Yes	2009	Ongoing process
Investing in sewer/sanitation line infrastructure	Yes	2010	Bonded 2010; seeking bonding in 2013
Appoint a Mitigation Officer	Yes	2011	Completed
Addison Creek Restoration Commission Act	Yes	On Going	Ongoing process
Implement Homeowners Insurance Program	Yes	2013	Spring 2012
Constructing/Renovation in the Flood Plain	Yes	On Going	Ongoing process
Installation of backup generators in center	No	None	Waiting on funding
Earthquake awareness	No	None	Projected end of 2013
Sever Storm/Tornado awareness	Partial	2012	Started storm spotter training
Monitoring water bans	No	None	Waiting on funding

Community Outreach

The following is the Community outreach program that will be implemented by the Village of Westchester to better inform and educate the residents of Westchester:

Community Outreach:

1. **Fund overhead sewer program with grant money**
2. **Publish flood mitigation information at the beginning of the year in the monthly newsletter**
3. **Develop a mitigation checklist to review resident's home**
4. **Minimum of two (2) public forums promoting flood mitigation planning**
5. **Inform residents about flooding information readily during "flood season"**
6. **Inform residents about developing or new construction in flood plain**
7. **Have a mitigation section of the website to:**
   a) **Have readily available material for view**
   b) **Have an interactive site for residents to ask questions**
   c) **Have a "most frequently asked questions" section**
   d) **List all agencies where residents can seek additional help or funding**
8. **Work with local contractors to give group discounts on certain projects**
9. **Implement insurance for homeowners water/sewer lines program**
10. **Inform residents of Westchester's policy of information flow during and after a major flood.**
    a) **Definition of major flood**
    b) **Where to seek help**
    c) **Where to retrieve information that is current as possible**
11. **Keep the information flow of flood mitigation information to the residents current and readily available:**
    a) **Libraries**
    b) **Other governmental agencies**
    c) **Local businesses**
12. **Monitor and update the mitigation plan when new technologies, policies or procedures become available or required.**

Notes:

Item #1 dependent on obtaining grant money
Item #2 accomplished in January 2012 newsletter
Items #3 - #5 currently scheduled for summer 2012
Item #6 already part of building permit process
Item #7 started in January 2012
Item #8 currently scheduled for summer 2012
Item #9 scheduled for spring 2012
Item #10 on website as of January 2012, scheduled for summer 2012 for other media
Item #11 accomplished in January 2012; also ongoing
Item #12 review scheduled for Spring of 2013

THE COMMUNITY RATING SYSTEM

FEMA's National Flood Insurance Program (NFIP) administers the Community Rating System (CRS). Under the CRS, flood insurance premiums for properties in participating communities are reduced to reflect the flood protection activities that are being implemented. This program can have a major influence on the design and implementation of flood mitigation activities, so a brief summary is provided here.

A community receives a CRS classification based upon the credit points it receives for its activities. It can undertake any mix of activities that reduce flood losses through better mapping, regulations, public information, flood damage reduction and/or flood warning and preparedness programs. The CRS provides an incentive not just to start new mitigation programs, but also to keep them going.

There are ten CRS classes: class 1 requires the most credit points and gives the largest premium reduction; class 10 receives no premium reduction. A community that does not apply for the CRS or that does not obtain the minimum number of credit points is a class 10 community. Information about the CRS can be found at

http://www.fema.gov/business/nfip/crs.shtm.

The Village of Westchester has been accepted to become a CRS community, as many CRS-applicable credits are already being implemented. Additional CRS credits are outlined within this plan.

Benefits of CRS Participation

In addition to the direct financial reward for participating in the Community Rating System, there are many other reasons to participate in the CRS. Other benefits that are more difficult to measure in dollars include:

1. Activities credited by the CRS that provide direct benefits to residents:
   - Enhanced public safety;
   - A reduction in damage to property and public infrastructure;
   - Avoidance of economic disruption and losses;
   - Reduction of human suffering; and
   - Protection of the environment.
2. A community's flood programs are better organized and more formal.
3. The village will review current plans and adopt new ones as its commitment to the safety of the residents.
4. A community can evaluate the effectiveness of its flood program against a nationally recognized benchmark.
5. Technical assistance in designing and implementing a number of activities is available at no charge from the Insurance Services Office.
6. The public information activities build a knowledgeable constituency interested in supporting and improving flood protection measures.
7. A community has an added incentive to maintain its flood programs over the years.
8. The fact that its CRS status could be affected by the elimination of a flood-related activity should be taken into account by the Village Board when considering such actions.
9. Every time residents pay their insurance premiums, they are reminded that the community is working to protect them from flood losses, even during dry years. More information on the Community Rating System can be found at http://training.fema.gov/EMIWeb/CRS/.

Repetitive Loss Properties in the Village of Westchester

The Federal Emergency Management Agency defines a "repetitive loss structure" as an NFIP insured structure that has received two or more flood insurance claim payments of more than $1,000 each within any 10-year period since 1978. These structures account for approximately one-third of the nation's flood insurance claim

payments. Identifying these structures and working with local jurisdictions to implement the appropriate mitigation measures to eliminate or reduce the damages caused by repeated flooding to these structures is important to FEMA and the NFIP. These structures not only increase the NFIP's annual losses, they drain funds needed to prepare for catastrophic events. The Village has 28 properties that fit this description. These 28 properties are all single-family dwellings that have accounted for 68 loss claims as of 11/30/11.

Village of Westchester Participation in the NFIP

The Village of Westchester is currently in good standing with the National Flood Insurance Program and will continue to implement and enforce all NFIP requirements within the village. Westchester will continue to improve and enforce zoning/building codes associated with floodplain management within the village, while completing and developing current and accurate floodplain maps for all watersheds in the Village of Westchester

Update 2013:

The Village of Westchester has obtained a ranking of 8 in the Community Rating System as administered by the NFIP. This ranking was administered to the Village of Westchester on February 1, 2013.

U.S. Department of Homeland Security
Region V
536 S. Clark St., 6th Floor
Chicago, IL 60605
FEMA

NOV 1 0 2011

SUBJECT: National Flood Insurance Program Community Rating System

The Honorable Sam Pulia
Mayor, Village of Westchester
10300 Roosevelt Rd.
Westchester, IL 60154

Dear Mr. Pulia:

Thank you for your letter requesting this office to determine whether the Village of Westchester, Illinois is eligible for participation in the National Flood Insurance Program (NFIP) Community Rating System (CRS).

The State of Illinois, Department of Natural Resources, has conducted a community assistance visit and found that the Village is in full compliance with the NFIP, and as such, is eligible to apply for CRS. Additionally, we have reviewed our community docket file and found the Village to be in full compliance.

Our records indicate that there are zero repetitive flood insurance claim properties in the Village of Westchester.

Thank you for your interest in CRS and for achieving this measure of success in floodplain management. We look forward to welcoming the Village of Westchester into the elite fraternity of Illinois CRS communities.

Sincerely,

David Schein

David Schein
FEMA Regional Flood Insurance Liaison

EC: Brian Eber, North East Floodplain Program Coordinator, IDNR
Scott Cofoid, ISO/CRS Specialist
Walter J. Novak, Trustee for the Village of Westchester
Jennifer Scholl, FEMA IL State Specialist

Appendices

A – 1 Resolution R43 Westchester Emergency Operations Plan

A – 2 Agenda for Special Meeting on July 27, 2010

A – 3 Map of the Village of Westchester

A – 4 Village of Westchester FIRM (Flood Insurance Rate Map)

A – 5 Village of Westchester Flood Survey Map – Occurrences

A – 6 Village of Westchester Flood Survey Map – Depth Levels

A – 7 Land

A – 8 Mitigation Plan and Hazards Identified

A – 9 The Mitigation Plan in Everyday Business

A – 10 Damage from key/critical buildings from July 2010 flood (Public Assistance Program)

A – 11 Identify The Hazards Worksheet

A – 12 Intentional Blank Page

A – 13 January 29, 2009 Flood Meeting Notice

S – 1 Source Document

M – 1 Mitigation Strategies

U – 1 FEMA acknowledgement for CRS rating

RESOLUTION R 43

A RESOLUTION ADOPTING THE VILLAGE OF WESTCHESTER EMERGENCY OPERATIONS PLAN, WESTCHESTER, COOK COUNTY, ILLINOIS

WHEREAS, the objective of preparing emergency plans is to create the capacity for local government to:

1. Save the Maximum number of lives in the event of a major emergency or disaster, and minimize injuries as well;
2. Protect property;
3. Preserve functioning civil government
4. To maintain and support economic activities essential for the survival and eventual recovery from the emergency or disaster.

WHEREAS, in the past, emergency and disaster plans were written to deal with the effects of one or more disaster situations.

WHEREAS, it is now felt that all emergencies and disaster situations have certain commonalties.

WHEREAS, this plan will focus on developing a comprehensive emergency management system capable of operating in any type of emergency or disaster situation whether natural or technological.

WHEREAS, provisions for operating under each of the Comprehensive Emergency Management phases, (mitigation, preparedness, response, and recovery) further described in the Concept of Operations, will be outlined in functional annexes developed for each operational department of the Village of Westchester

NOW THEREFORE BE IT RESOLVED that the President and Board of Trustees of the Village of Westchester hereby adopt the Village of Westchester Emergency Operations Plan, as set forth in the attached hereto as Exhibit "A" which is, by this reference, incorporated herein.

PASSED this 25th day of November, 2008

AYES: Boyle, Burkema, Casey, Fox, Ryan

NAYS: —

ABSENT: Bailey

APPROVED this 25th day of November, 2008

Paul Gattuso

Paul Gattuso
President of the Village of Westchester
Cook County, Illinois

ATTEST:

Kathryn Hayes

Kathryn Hayes, Village Clerk

A-1

Village of Westchester

10300 ROOSEVELT ROAD, WESTCHESTER, IL 60154
(708)345-0020 FAX (708)345-2873
WWW.WESTCHESTER-IL.ORG

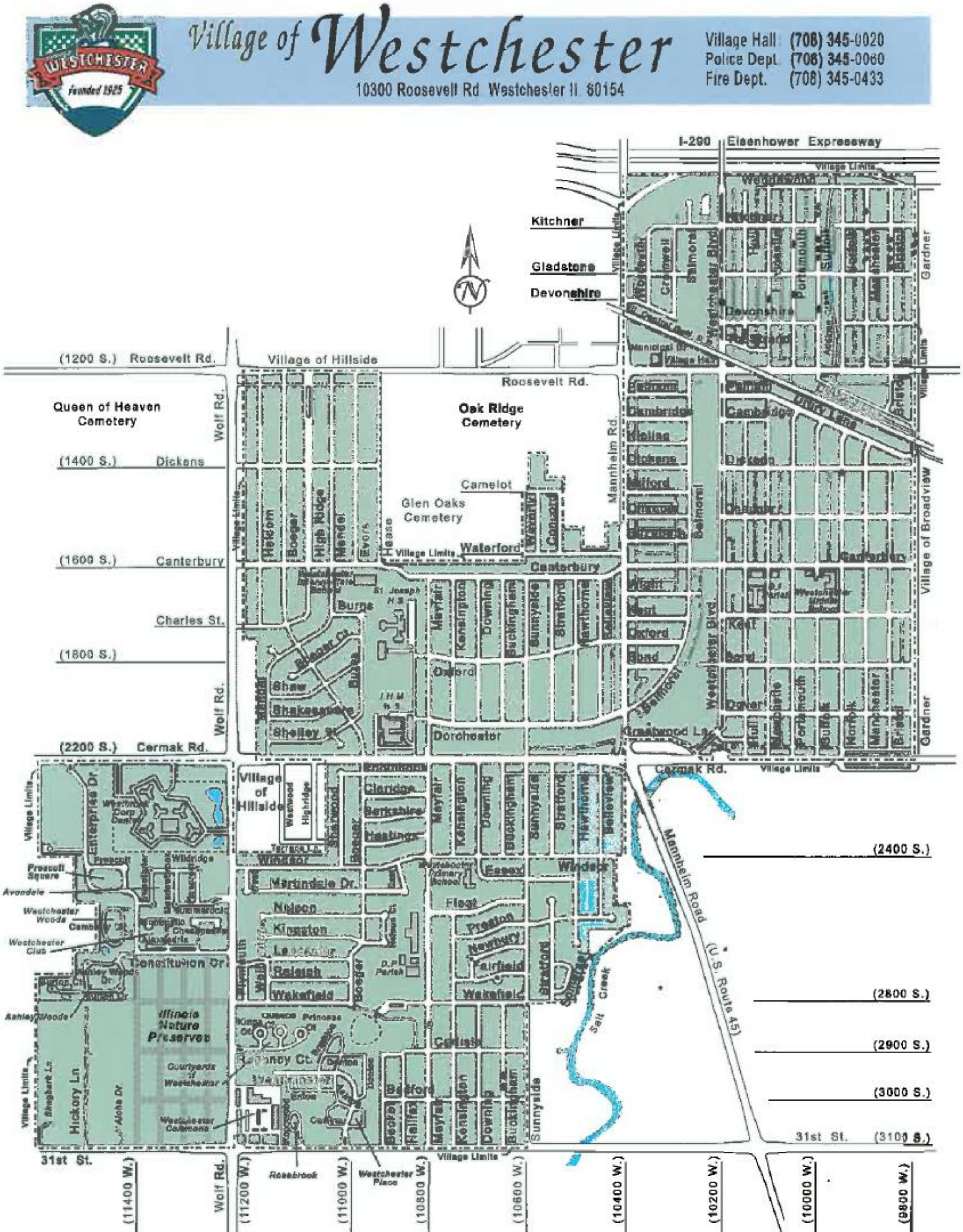
NOTICE OF SPECIAL MEETING
WESTCHESTER VILLAGE BOARD
TUESDAY, JULY 27TH, 2010
6:00 PM

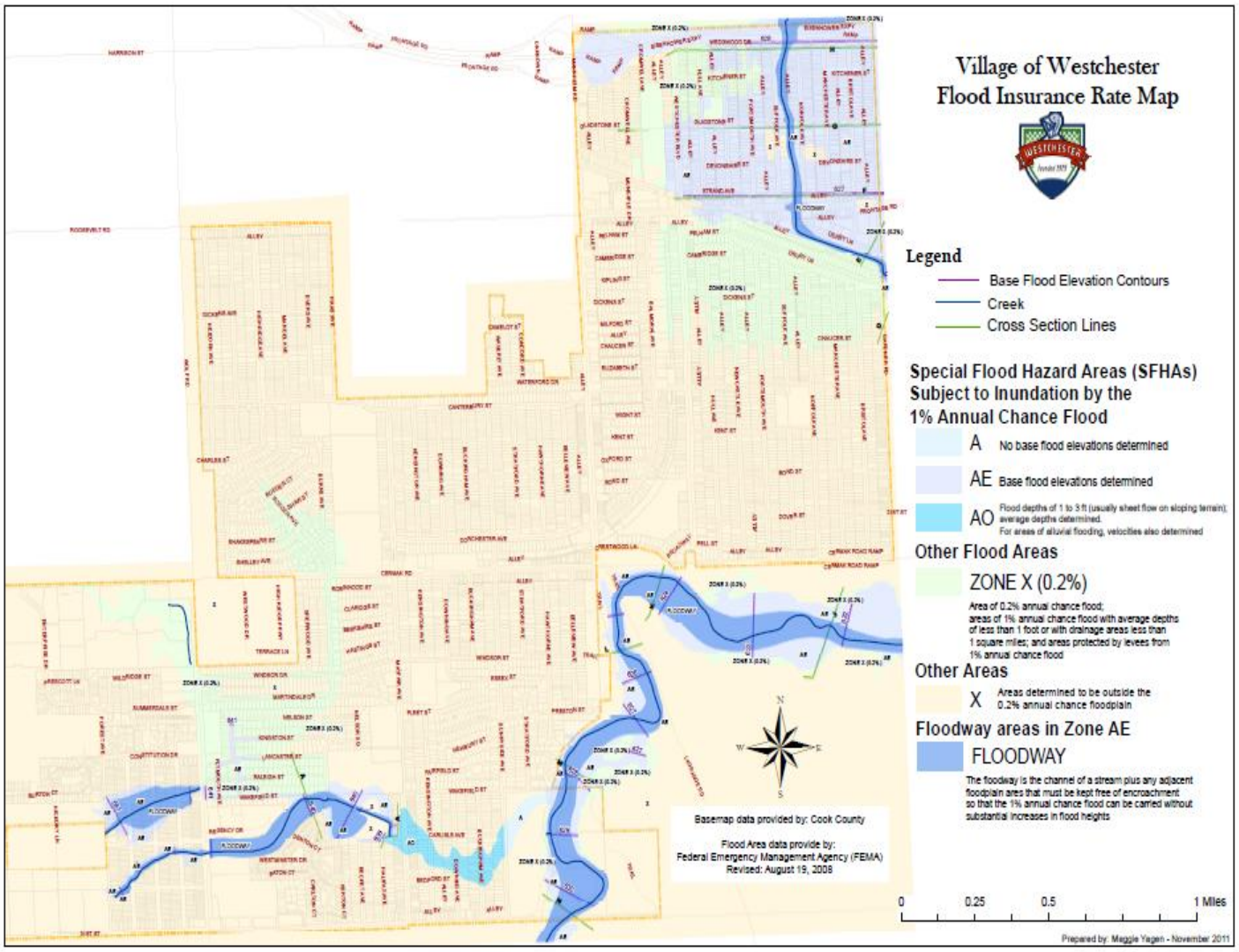
WESTCHESTER MIDDLE SCHOOL(NIXON)
1600 NORFOLK AVENUE
WESTCHESTER, IL

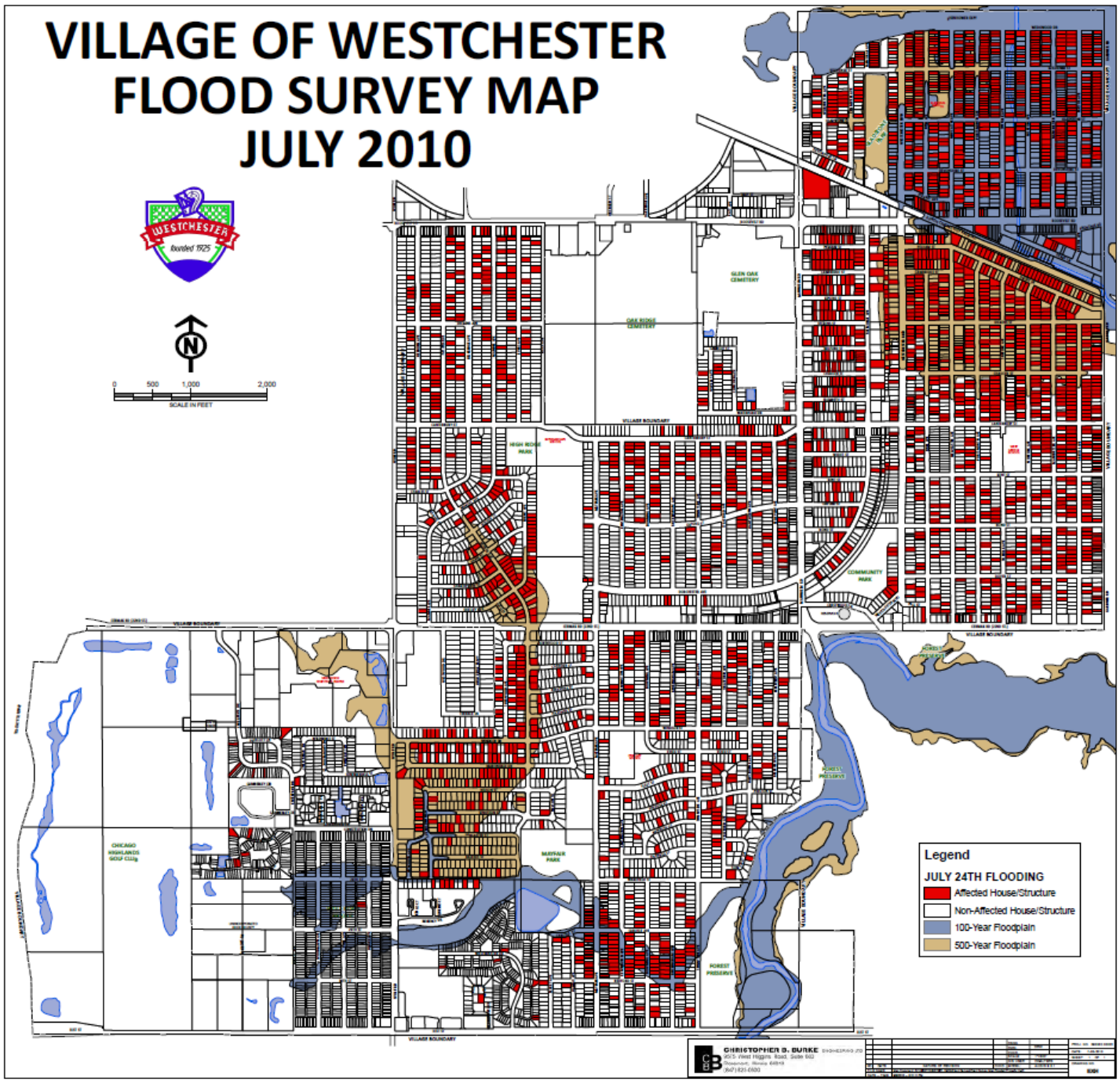
AGENDA

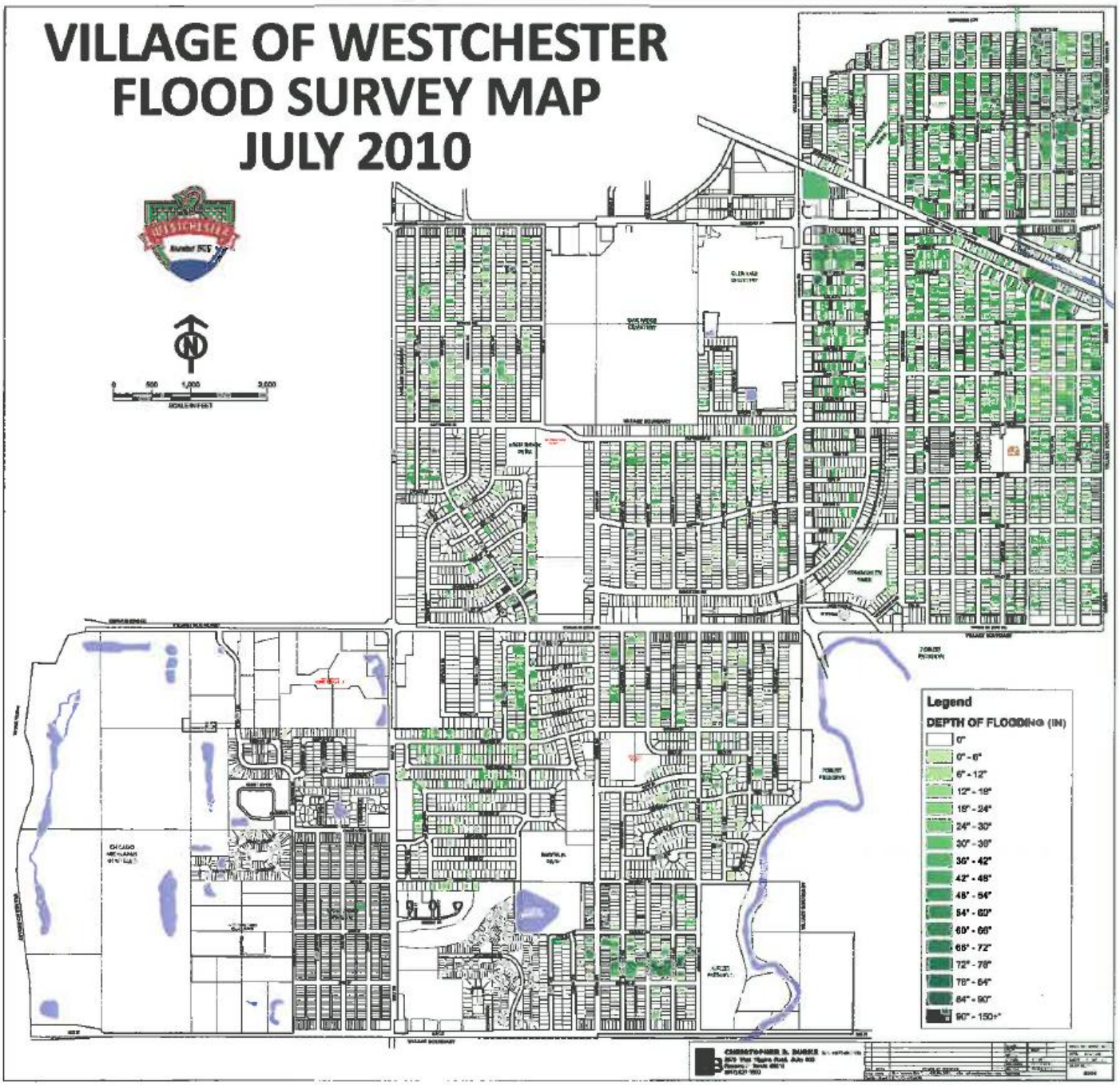
1. Roll Call
2. Pledge of Allegiance
3. New Business
   a) Declaration of State of Emergency in the Village of Westchester
4. Adjournment.

The Village of Westchester will make all reasonable modifications to policies and programs to ensure that people with disabilities have an equal opportunity to enjoy all of its programs, services, and activities. Anyone who requires an auxiliary aid or service for effective communication, or a modification of policies or procedures to participate in a program, service, or activity of the Village of Westchester, should contact the office of the Fire Chief, 10300 W. Roosevelt Road, Westchester, IL, 60154 (708) 345-0441, as soon as possible but no later than 48 hours before the scheduled event.


Village of Westchester
10300 Roosevelt Rd Westchester Il 60154
Village Hall (708) 345-0020
Police Dept. (708) 345-0060
Fire Dept. (708) 345-0433
Founded 1925
I-290 Eisenhower Expressway
Kitchner
Gladstone
Devonshire
(1200 S.) Roosevelt Rd.
Village of Hillside
Roosevelt Rd.
Queen of Heaven Cemetery
Oak Ridge Cemetery
Wolf Rd.
Mannheim Rd.
(1400 S.) Dickens
Camelot
Glen Oaks Cemetery
Waterford
(1600 S.) Canterbury
Canterbury
Charles St.
(1800 S.)
(2200 S.) Cermak Rd.
Cermak Rd.
Dorchester
Village of Hillside
Village of Broadview
Gardner
Mannheim Road
(U.S. Route 45)
Salt Creek
(2400 S.)
(2800 S.)
(2900 S.)
(3000 S.)
31st St.
(3100 S.)
31st St.
Illinois Nature Preserves
(11400 W.)
Wolf Rd.
(11200 W.)
(11000 W.)
(10800 W.)
(10600 W.)
(10400 W.)
(10200 W.)
(10000 W.)
(9800 W.)


Village of Westchester
Flood Insurance Rate Map
Legend
Base Flood Elevation Contours
Creek
Cross Section Lines
Special Flood Hazard Areas (SFHAs)
Subject to Inundation by the
1% Annual Chance Flood
A No base flood elevations determined
AE Base flood elevations determined
AO Flood depths of 1 to 3 ft (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial flooding, velocities also determined
Other Flood Areas
ZONE X (0.2%)
Area of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square miles; and areas protected by levees from 1% annual chance flood
Other Areas
X Areas determined to be outside the 0.2% annual chance floodplain
Floodway areas in Zone AE
FLOODWAY
The floodway is the channel of a stream plus any adjacent floodplain area that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights
Basemap data provided by: Cook County
Flood Area data provide by:
Federal Emergency Management Agency (FEMA)
Revised: August 19, 2008
0 0.25 0.5 1 Miles
Prepared by: Maggie Yagen - November 2011


VILLAGE OF WESTCHESTER
FLOOD SURVEY MAP
JULY 2010
WESTCHESTER
founded 1925
0 500 1,000 2,000
SCALE IN FEET
Legend
JULY 24TH FLOODING
Affected House/Structure
Non-Affected House/Structure
100-Year Floodplain
500-Year Floodplain
CHRISTOPHER B. BURKE


VILLAGE OF WESTCHESTER
FLOOD SURVEY MAP
JULY 2010
Legend
DEPTH OF FLOODING (IN)
0"
0" - 6"
6" - 12"
12" - 18"
18" - 24"
24" - 30"
30" - 36"
36" - 42"
42" - 48"
48" - 54"
54" - 60"
60" - 66"
66" - 72"
72" - 78"
78" - 84"
84" - 90"
90" - 150+"

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Land

Westchester has three primary land users:

Westchester Park District – The WPD owns and maintains land at the Community Center and Mayfair Fitness Center. Theses consist primarily of ball fields, but includes tennis courts. At the Community Center there is also a public swimming pool.

School District 92 ½ - Along with the three functioning schools listed in the critical buildings, 92 ½ also have a school which is rented out on Gladstone Ave. All three schools have land attached consisting of ball fields.

St. Joseph High School – located at Cermak road and Mayfair Avenue there are two schools (one functional) which has ball fields and a soccer field.

Gladstone park is co-owned by district 92 ½ and the Westchester Park District. This land is a soccer field and ball field

Development

As of the creation of this plan there is only one development active which is at the corner of 31st Street and Wolf Road. This land is not in the flood plain and is following all building requirements.

Westchester is considered land locked, and the only option for a new development would be the old St. Joes property.

All ball fields and open space is owned either by Westchester Park District or District 92 ½ which are separate government entities from the Village of Westchester.

Mitigation Plan and Hazards Identified

Expand Mayfair Reservoir – This will reduce flooding to homes form Wakefield to 31st Street from the reservoir to Sunnyside Avenue, in case of overflow from Mastodon Creek by the reservoir.

Review Sanitation/Storm lines – This will be a cost effective program for checking storm drains when streets are being completed. This will increase flow restriction in case of storms are sever winter thaws.

Rain Barrel Program – This will help move rain water form residents home to reduce seepage in case of severe storms or severe winter thaws.

Funding Overhead Sewer program – for residents with conventional sewer systems this will reduce or eliminate flooding from water backing up through the floor drain. This usually occurs from severe storms but can also may be caused by severe winter storm thaws.

Scope Sanitation/Storm lines – This will be an ongoing project to identify weakness in the lines to prioritize repairs and keep the flow of water moving in case of severe storms and sever winter thaws.

Preventive Maintenance Program – This will keep the costs down on repairs and keep infrastructure working. This benefit is for severe storms, sever winter thaws, tornadoes, drought, extreme heat and cold.

Continue Street Sweeping and Leaf Bag Program – This will limit debris form going into the sewer systems to keep the water flow in case of severe storms or sever winter storm thaws.

Continue investing in sewer/sanitation lines – similar to Preventive Maintenance Program.

Appoint Mitigation Officer – will keep mitigation plan up to date and programs on line. Also it will keep membership in the NFIP current with meeting all requirements as the Village of Westchester is currently a standing member of.

Addison Creek Restoration – Current membership will keep Westchester up to date on potential benefits for severe storms and severe winter thaws.

Public Outreach – this will keep residents up to date on all hazards with safety and reduction of loss.

The Mitigation Plan in Everyday Business

This section will describe how the mitigation plan has been incorporated in current processes the village is engaged in and how the plan will affect future processes.

Building Check list – In the Building Department with compilation of this plan a new building checklist was developed to incorporate building in the flood plain and what a resident should know and look for if work is being done by a contractor or the resident.

Community Ranking System – The mitigation plan is incorporated in our membership in the CRS. Community outreach is a big component of both the plan and the CRS.

Town Hall meeting – The plan will be incorporated in town hall meetings to explain phases of the plan and the dangers of the hazards that have been identified to affect Westchester.

Economic Development (ED) – In our ED plan the mitigation plan will be incorporated in where developments may go and the potential risks that have to be considered where for example drainage of rain water or severe winter storm thaws may run and the potential structures or paths this run off may take.

Working with our school system and libraries to have this documentation available for view by the public, plus holding learning classes of what hazards are and what residents can do to limit damage and increase safety.

Maintain our building ordinance and keep it up to date for building in the flood plain.

Use the knowledge in the mitigation plan to keep current mitigation plans on track and help develop new ones as technology changes.

Use the mitigation plan as tool to help increase funding opportunities for mitigation projects.

Identify key/critical structures to maintain and prepare them for hazards identified in the plan.

Illinois Emergency Management Agency
Public Assistance Program

Initial Damage Assessment Cost Tabulation

County Cook Organization Village of Westchester Page 1 of 1

Contact Name Jim Egeberg Phone No. 708-345-0155 Email Address jegeberg@westchester-il.org

Facility/ Location	Category A Debris Removal	Category B Emergency Protective Measures	Category C Road/Bridge Systems	Category D Water Control Facilities	Category E Buildings and Equipment	Category F Utility Systems	Category G Parks, Recreation, Other	Total Costs
Police Department		23,329			16,401			39,730
Public Works	212,846	15,622	65,000	22,247	189,150	112,975		617,840
Fire Department		22,943						22,943
Administration					12,822		5,000	17,822
Totals	212,846	61,894	65,000	22,247	218,373	112,975	5,000	698,335

Enter costs for under each category (see checklist) and then total costs for each location and category. For more information about the Public Assistance Program, please refer to the information on our website www.iema.illinois.gov/iema/disaster/pa.htm or call any member of our Public Assistance staff at 217-782-8719.

Illinois Emergency Management Agency
Public Assistance Program

Initial Damage Assessment Cost Tabulation

County Cook Organization Westchester Public Library Page 1 of 1

Contact Name Ruth McCrank Phone No. (708) 562-3573 Email Address ruthmc@westchesterpl.org

Facility/ Location	Category A Debris Removal	Category B Emergency Protective Measures	Category C Road/Bridge Systems	Category D Water Control Facilities	Category E Buildings and Equipment	Category F Utility Systems	Category G Parks, Recreation, Other	Total Costs
10700 Canterbury Westchester, IL Westchester Public Library							71,923.96	
10726 Canterbury St. Westchester, IL							$400	
10658 Canterbury St. Westchester, IL							$900	
Totals							73,223.96	73,223.96

Enter costs for under each category (see checklist) and then total costs for each location and category. For more information about the Public Assistance Program, please refer to the information on our website www.iema.illinois.gov/iema/disaster/pa.htm or call any member of our Public Assistance staff at 217-782-8719.

Illinois Emergency Management Agency
Public Assistance Program

Initial Damage Assessment Cost Tabulation

County Cook County Organization Westchester Public Schools, District 92½ Page 1 of 1

Contact Name Dr. Jean Sophie Phone No. 708/450-2700 Email Address jsophie@sd925.org

Facility/ Location	Category A Debris Removal	Category B Emergency Protective Measures	Category C Road/Bridge Systems	Category D Water Control Facilities	Category E Buildings and Equipment	Category F Utility Systems	Category G Parks, Recreation, Other	Total Costs
Westchester Primary School					1,000			$1,000
Westchester Intermediate School	300				1,000			1,300
Westchester Middle School	4,000							4,000
Britten Building					2,000			2,000
Westchester 92½ - District Office	9,000	500			Insurance coverage	Insurance coverage	Insurance coverage	9,500
Totals	13,300	500			4,000			$17,800

Enter costs for under each category (see checklist) and then total costs for each location and category. For more information about the Public Assistance Program, please refer to the information on our website www.iema.illinois.gov/iema/disaster/pa.htm or call any member of our Public Assistance staff at 217-782-8719.

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Illinois Emergency Management Agency
Public Assistance Program

Initial Damage Assessment Cost Tabulation

County Cook Organization Westchester Park District Page 1 of 1

Contact Name Gary Kasanders Phone No. 708 865-8200 Email Address gkasanders@comcast.net

Facility/ Location	Category A Debris Removal	Category B Emergency Protective Measures	Category C Road/Bridge Systems	Category D Water Control Facilities	Category E Buildings and Equipment	Category F Utility Systems	Category G Parks, Recreation, Other	Total Costs
Mayfair Park							Cleanup Labor	$ 2,480.00
Mayfair Pk Restoration	Materials						Materials	$ 475.00
Gladstone Park							Labor	$ 545.00
Community Park							Labor	$ 960.00
Dairy Lane Park							Labor	$ 320.00
Norfolk Park							Labor	$ 395.00
Materials Norfolk Restoration							Materials	475.00
Totals								$ 5,645.00

Enter costs for under each category (see checklist) and then total costs for each location and category. For more information about the Public Assistance Program, please refer to the information on our website www.iema.illinois.gov/iema/disaster/pa.htm or call any member of our Public Assistance staff at 217-782-8719.

Identify The Hazards Worksheet
Westchester, Illinois

Hazard	Task	Task	Hazard or Event Description	Source of Information	Map Available For Hazard	Scale of Map
Avalanche			None			
Coastal Erosion			None			
Coastal Storm			None			
Dam Failure			None			
Drought	√	√	Currently **Moderate**	US Drought Map	Yes	
Earthquake	√	√	February 10, 2010 3.8 magnitute hits Elgin	ABC, New York Times, USGS	Yes	
Expansive Soils	√	√	By definition and flooding issues	www.geology.com		
Extreme Heat	√	√	1916 - 1995 of 3+ consecutive days of 100+	National Weather Service	Yes	
Flood	√	√	July 23, 2010 Flood	Declaration of Fed Disaster	Yes	
Hailstorm	√	√	April 2, 2006 - .25" hail reported	NOAA		
Hurricane			None			
Land Subsidence			None			
Landslide			None			
Sever Winter Storm	√	√	February 2, 2011 blizzard, 20.2"	Chicago Tribune	Yes	
Tornado	√	√	Various F1 - F5 within 50 miles of area	www.homefacts.com	Yes	
Tsunami			None			
Volcano			None			
Wildfire			None			
Windstorm	√	√	June 2010 Storms; micro bursts	National Weather Service	Yes	
Extreme Cold	√	√	Less than 40 degrees Fahrenheit with wind greater than 3 MPH.	National Weather Service	Yes	
Other						
Other						

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FLOODING PROBLEMS?

The Village of Westchester encourages you to attend this informational meeting for residents and business owners.

Thursday, January 29, 2009, 6:30 pm
Westchester Village Hall - Boardroom

Representatives from FEMA will present information on the following topics:

- Flood insurance: How to get it? Who needs it? What does it cover? What doesn't it cover?
- Flood hazard mitigation: how to protect your home and business before a flood
- Beyond flood insurance: what can you do to protect your after a flood

Source Document

FEMA: www.fema.gov
US Census Bureau: www.census.gov
Home – Ready: www.ready.gov
Village of Westchester: www.westchester-il.org
NOAA (National Oceanic and Atmospheric Administration) – www.noaa.gov
IDNR (Illinois Department of Natural Resources) – http://dnr.state.il.us
IEMA (Illinois Emergency Management Agency) – www.state.il.us/iema
Village of Glenview Mitigation plan
Calumet City Hazard Mitigation Plan
The American Society of Civil Engineers (ASCE)
www.homefacts.com
www.weather.com
U.S. Geological Survey (USGS)
Chicago O'Hare Airport
Chicago Midway Airport
Illinois Hazard Mitigation Plan (2007)
National Weather Service
Illinois Climatologist Office www.isws.illinois.edu
National Climatic Data Center (NCDC)
Institute for Business and Home Safety (IBHS)

The following firms have aided with information on the mitigation projects in the plan:

- Chris Burke Engineering
- Hancock Engineering
- V3 Engineering
- National Power Rodding

The mitigation projects involved are:

- Expand Mayfair Reservoir
- Scoping sanitation/storm sewers
- Review sanitation/storm lines
- Continue sewer/sanitation investment

Mitigation Strategies

Emergency Operations - What to do in case of a disaster is outlined in the Westchester Emergency Operations Plan. To review elements of this plan, please contact one of the following individuals:

- The Village of Westchester Village Manager
- The Village of Westchester Police Chief
- The Village of Westchester Fire Chief

Also items covered in what to do to protect property before, during and after a disaster is covered by The Village of Westchester Flood Mitigation Manual which is catalogued and on display at the following libraries:

- The Village of Westchester Public Library
- District 92.5 Middle School Library

And in display at:

- The Village of Westchester Village Hall

(locations of these facilities are found in Key/critical government buildings on page 6)

Items covered in this manual include but is not limited to:

- Storm water management
- Sand bagging, window preparation
- Cleaning after a disaster
- Repairs after a disaster
- Flood Insurance for Homeowners

Also included are non-flood disaster mitigation.

Warning Systems – The Village of Westchester maintains and utilizes the following public warning systems in case of a disaster:

- Robo Calling
- Reverse public address system
- Reverse 911
- Twitter
- Nixle
- Door to door
- Police/fire vehicle mobile communication speaker system

Building/zoning – The following ordinance outlines the Village of Westchester's adherence to planning and building in the flood plain: (The entire ordinance can be viewed in its entirety on line at www.westchester-il.org)

Chapter 14.20 SPECIAL FLOOD HAZARD AREAS*

Title 14 BUILDINGS AND CONSTRUCTION

Chapter 14.20 SPECIAL FLOOD HAZARD AREAS*

14.20.010 Purpose.

14.20.020 Definitions.

14.20.030 How to use this chapter.

14.20.040 Duties of the enforcement official(s).

14.20.050 Base flood elevation.

14.20.060 Occupation and use of flood fringe areas.

14.20.070 Occupation and use of designated floodways.

14.20.080 Occupation and use of SFHA areas where floodways are not identified.

14.20.090 Permitting requirements applicable to all floodplain areas.

14.20.100 Other development requirements.

14.20.110 Variances.

14.20.120 Disclaimer of liability.

14.20.130 Penalty.

14.20.140 Abrogation and greater restrictions.

14.20.150 Separability.

14.20.160 Effective date.

Mitigation projects not accepted – During the development of this plan mitigation projects were reviewed which were not accepted as projects to be pursued. These projects were not accepted due to one or all of the following:

- Cost benefit – The cost benefit to the residents did not exceed the cost of the project.
- Scope – The scope of the project was not in line or could not fit in the boundaries of the Village of Westchester
- Feasibility – The project was outside the limitations of what the Village of Westchester could handle.

For example the idea of building an additional reservoir on the North side of town which would have been north of Roosevelt Road, east of Wolf Road and West of Gardner road was suggested. The reservoir would have to be similar to the Mayfair Reservoir (66 million gallons) and would entail acquisition and demolition of blocks of residential homes, as there is not open space in that section of town, and placing it near the stream to empty into. Also a pumping station would have to be constructed to achieve this. The cost, scope and feasibility elements were not met on this project.

U.S. Department of Homeland Security
500 C Street, SW
Washington, DC 20472

FEMA

FEB 01 2013

Mr. Sam Pulia
President, Village of Westchester
10300 Roosevelt Road
Westchester, IL 60154

Dear Mr. Pulia:

I want to congratulate your community on its application to the National Flood Insurance Program (NFIP) Community Rating System (CRS). The Department of Homeland Security, Federal Emergency Management Agency (FEMA), has verified that the voluntary actions undertaken by your community exceed the minimum standards of the NFIP and meet the criteria for a CRS Class 8 rating. The floodplain management activities implemented by your community qualify it for a 10 percent discount in the premium cost of flood insurance for NFIP policies issued or renewed in Special Flood Hazard Areas on or after October 1, 2012. This savings is a tangible result of the flood mitigation activities your community implements to protect lives and reduce property damage. I am enclosing the field verification report showing the results of your application review for your records.

Please note that Preferred Risk Policies, applicable in Zones B, C, and X on your community's NFIP Flood Insurance Rate Map, are not eligible for the CRS discount. Standard rated flood insurance policies in Zones B, C, X, D, AR, and A99 are limited to a CRS discount of 10 percent in CRS Class 1–6 communities and 5 percent in CRS Class 7–9 communities. The rates for these zones already reflect significant premium reductions.

If your community remains in compliance with NFIP regulations, the CRS rating will automatically be renewed annually and a notification letter will not be sent to your community. This renewal will occur as long as your community continues to implement the CRS activities you certify each October. If no additional modifications or new CRS activities are added, the next verification visit for your community will be in accordance with its established 5-year cycle. In the interim, FEMA will periodically send the *NFIP/CRS Update* newsletter and other notices to your CRS Coordinator to keep your community informed.

I commend you on your community actions and your determination to lead your community to be more disaster resistant. This commitment enhances public safety, protects property, preserves the natural functions of floodplains, and reduces flood insurance premiums.

If you have any questions or need additional information, please contact the FEMA Region V Office, CRS Coordinator, John Devine, by telephone at (312) 408-5567.

Sincerely,

David L. Miller
Associate Administrator
Federal Insurance and Mitigation Administration

Enclosure

cc: Walter Novak, Village Trustee

www.fema.gov